REPORT

OF THE

SECOND NORWEGIAN ARCTIC EXPEDITION IN THE "FRAM" 1898—1902

VOL. I

AT THE EXPENSE OF THE FRIDTJOF NANSEN FUND
FOR THE ADVANCEMENT OF SCIENCE

PUBLISHED BY

VIDENSKABS-SELSKABET I KRISTIANIA

KRISTIANIA
IN COMMISSION BY T. O. BRØGGER
PRINTED BY A. W. BRØGGER
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PREFACE.

The Report, of which this is the first volume, will, in a series of treatises, give the scientific results of the Second Norwegian Arctic Expedition in the 'Fram' 1898—1902, under the command of Capt. Otto Sverdrup.

For this Expedition the Norwegian Government lent the above-mentioned vessel, which is specially constructed for and adapted to Arctic exploring, and which, on the First Expedition 1893—1896 under the leadership of Fridtjof Nansen, proved to possess such excellent qualities.

The Storthing granted the sum of 20 000 Kroner for requisite repairs to the ship and for alterations that were found necessary in her superstructure.

All other expenses, reaching an aggregate sum of 216 250 Kroner, were generously defrayed by three gentlemen interested in Arctic exploration, viz: Consul Axel Heiberg and the brothers, Messrs Amund and Ellef Ringnes, brewers of this city; the same three men, whose generous support rendered possible the first Arctic expedition in the 'Fram'.

Among the members of the Expedition worthy of special notice are those that have procured the scientific material that will be dealt with in this Report, viz: Lieut. (now Captain) Victor Baumann, R. N. (second in command), Lieut. (now Captain of Cavalry) Gunnar Isachsen (geographer and cartographer), Mr. Per Schei, assistant in the Mineralogical Institute, Christiania (geologist and palæontologist), Mr. Herman Georg Simmons of the Lund University (botanist) and Mr. Edward Bay, of the Copenhagen University (zoologist).

As will appear from the various treatises, several of these scientists took part in other investigations than those appertaining to their special branches.

On 24th June 189~~9~~8 the Expedition left Christiania, and already in August the same year were able to commence the scientific exploration

of the Foulkefjord, on the west coast of Greenland (78° 20′ N. lat.). On the 17th August, however, the 'Fram' off Cape Sabine, was stopped in her progress by the ice and the Expedition therefore went into winter-quarters in Rice Strait. The autumn was passed in making sledge-excursions on the inland ice of Ellesmere Land and in mapping out and exploring the inner branches of Hayes Sound. In the spring of 1899 two sledge-excursions were undertaken across Ellesmere Land to the west coast, and the mapping out of Hayes Sound was completed. The summer, however, proved so unfavourable that it was impossible to advance in a more northerly direction. Capt. SVERDRUP therefore decided to force his way through Jones Sound and to go into winter-quarters with the 'Fram' in Havnefjord, to the south of Ellesmere Land, where surveying and scientific research were continued until 16th November.

In 1900, from the beginning of February until the middle of June, sledge-excursions were undertaken from the winter-quarters in a northerly direction (81° n. lat.) and towards the west (98° w. long.) and as soon as the ice broke up, dredging commenced. In August the 'Fram' was able to steam westward through Jones Sound to Belcher Channel and through the Cardigan Straits, whereupon the ship went into winter-quarters in Gaasefjord (76° 48′ n. lat., 89° w. long.).

In the middle of March 1901 sledge-excursions were recommenced and were continued until the middle of June, the land being explored and mapped out up to 79° 30′ n. lat., and 106° w. long.

From 24th of June until 19th July, dredging was carried on in Jones Sound, from which latter date until the ensuing 7th Aug., North Devon, to the south of the winter-quarters, was explored. On account of ice obstruction, the 'Fram' could not advance far, but had to go into winter-quarters at no great distance from those of the previous year. In the spring of 1902 the land was explored up to 81° 37′ n. lat. as also Ellesmere Land and North Devon. During the summer, dredgings were undertaken in Jones Sound and neighbouring waters.

On 6th Aug. 1902 the Expedition left Jones Sound, touched at Godhavn, Greenland on 17th Aug. and returned to Norway on the 19th Sept. 1902.

The Expedition had explored and mapped out vast tracts of land hitherto unknown and brought home excellent scientific material based on a series of meteorological observations, together with abundant botanical, zoological, palæontological, mineralogical and geological collections and some magnetic observations.

The botanical collections made by Mr. H. G. SIMMONS and the geological and palæontological collections made by Mr. P. SCHEI prove to be of vast scientific value.

On the return to Norway, the leader of the Expedition, Capt. OTTO SVERDRUP, under the title "New Land, Four Years in the Polar Regions," published a popular narrative of the doings of the Expedition, which book has been translated into several languages.

The Society of Arts and Sciences of Christiania, has undertaken the revision of the material, the pecuniary means with great liberality being provided by the trustees of the Fridtjof Nansen Fund for the Advancement of Science

As Editing Committee, the Society of Arts and Science elected Prof. Dr. W. C. BRØGGER, Prof. Dr. R. COLLETT, Prof. Dr. G. GULDBERG, Prof. Dr. H. MOHN, and Prof. Dr. N. WILLE, and these gentlemen appointed as Managing Editor the energetic geologist of the Expedition Mr. P. SCHEI.

Mr. SCHEI succeeded in inducing a number of eminent specialists in various countries to join in the work, and the treatises began to appear in print; he, however, was seized with a severe illness and after long suffering the promising career of this amiable and talented scientist came a close on 1st Nov. 1905.

The Editing Committee then entrusted to their fellow member of Committee, Professor WILLE, the publication of the remaining sections of the scientific results of the Expedition.

The Report of the Second Norwegian Arctic Expedition in the Fram 1898—1902 will be published in numbers or parts, at indefinite periods, containing a series of special treatises in the order in which they are made ready for the press.

The first volume contains the following treatises:

No. 1. A. G. NATHORST, Die oberdevonische Flora des Ellesmere-Lands.
— 2. H. G. SIMMONS, The Vascular Plants in the Flora of Ellesmere Land.
— 3. EMBR. STRAND, *Coleoptera, Hymenoptera, Lepidoptera* and *Araneae.*
— 4. H. MOHN, Meteorology.

The second volume contains the following treatises:

No. 5. GUNNAR ISACHSEN, Astronomical and Geodetical Observations.
— 6. AKSEL S. STEEN, Terrestrial Magnetism.
— 7. E. KITTL, Die Triasfossilien vom Heureka Sund.

No. 8. O. NORDGAARD, Bryozoa.
— 9. E. ROSTRUP. Fungi.
— 10. EINAR WAHLGREN, Collembola.
— 11. N. BRYHN, Bryophyta.

Christiania April 1907.

W. C. Brøgger. *R. Collett.* *G. Guldberg.*
H. Mohn. *N. Wille.*

CONTENTS OF VOL. I.

A. G. NATHORST:

DIE OBERDEVONISCHE FLORA DES ELLESMERE-LANDES

(MIT 7 TAFELN UND 4 FIGUREN IM TEXTE)

AT THE EXPENCE OF THE FRIDTJOF NANSEN
FUND FOR THE ADVANCEMENT OF SCIENCE

PUBLISHED BY

VIDENSKABS-SELSKABET I KRISTIANIA

(THE SOCIETY OF ARTS AND SCIENCES OF KRISTIANIA)

KRISTIANIA

PRINTED BY A. W. BRØGGER

1904

Einleitung.

Von den Sammlungen, die von der zweiten norwegischen Polarexpedition an Bord der „Fram“, unter Leitung des Kapitäns Otto Sverdrup, zusammengebracht wurden, nehmen die geologischen und paläontologischen einen hervorragenden Platz ein. In denselben kommen auch Pflanzenfossilien vor, und als ich im September 1902 Kristiania besuchte, um Kapitän Sverdrup und seine Begleiter bei der Rückkehr von ihrer kühnen und erfolgreichen Fahrt zu begrüssen, fragte mich Professor W. C. Brøgger, ob ich geneigt wäre, die betreffenden Fossilien zu untersuchen und zu beschreiben. Ich wollte selbstverständlich einige derselben sehen, bevor ich eine definitive Antwort gab; und es gelang Herrn Kandidat P. Schei, dessen unermüdlicher Energie wir das Zusammenbringen der geologischen und paläontologischen Sammlungen verdanken, einige Kisten aus dem Lastraum der „Fram“ hervorzuholen und zu öffnen. An einigen Stücken, die nun zum Vorschein kamen, glaubte ich Abdrücke von *Archaeopteris Archetypus* Schmalh. oder von einer damit nahe verwandten Art zu erkennen, und sprach deshalb schon damals die Meinung aus, dass es sich um oberdevonische Pflanzenfossilien handele. Da ich kurz vorher die Beschreibung der oberdevonischen Flora der Bären-Insel vollendet hatte[1], war ich selbstverständlich sehr gespannt zu erfahren, wie die entsprechende Flora von Ellesmere-Land zusammengesetzt sein könnte, und ich konnte deshalb nicht umhin, die Ausführung der erwünschten Beschreibung der Pflanzenfossilien zu versprechen. Ich wurde allerdings etwas erschrocken, als ich kurz darauf 20 Kisten, deren Gesamtgewicht etwa 1200 Kilogramm betrug, aus Kristiania empfing. Diese Sendung enthielt allerdings auch andere Sammlungen von Pflanzenfossilien als die oberdevonischen, nämlich Tertiärpflanzen teils aus der

[1] A. G. Nathorst, Zur oberdevonischen Flora der Bären-Insel. K. Svenska Vetensk. Akademiens Handlingar, Bd. 36, No. 3. Stockholm 1902.

Insel Disco, teils auch aus Ellesmere-Land; letztere bieten wegen ihres guten Erhaltungszustandes ein ganz besonderes Interesse. Es ist mir nämlich gelungen, die blatttragenden Zweige von *Sequoia Langsdorfii* u. s. w. aus dem pflanzenführenden Gestein (kohligen Thon) herauszuschlammen, so dass man dieselben ebenso gut wie Herbar-Exemplare rezenter Pflanzen untersuchen kann[1].

Obschon also die Sendung nicht ausschliesslich devonische Pflanzenfossilien enthielt, waren diesen doch zahlreich genug, da sie nicht weniger als 16 Kisten füllten. Die Zahl der Arten zeigte sich allerdings gering, Herr SCHEI hat aber den ganz richtigen Weg eingeschlagen, da er, eben weil er nicht selbst Fachmann auf diesem Gebiete war, so viel wie möglich mitgenommen hat. Diesem Umstand haben wir es zu verdanken, dass, trotz der Einförmigkeit dieser Flora, doch interessante Exemplare zum Vorschein gekommen sind, die unsere bisherige Erfahrung in einigen Fällen erweitern. A. E. NORDENSKIÖLD hat seiner Zeit auf ähnliche Weise gesammelt und dabei viele sehr bemerkenswerte Funde gemacht, die später bei der Bearbeitung der Materialien seitens OSWALD HEERS zum Vorschein kamen und von ihm beschrieben wurden.

Das Vorkommen der Pflanzenfossilien.

Über das Vorkommen der devonischen Pflanzen in Ellesmere-Land hat mir Herr SCHEI folgende Mitteilung gemacht.

„Die Gebirge mit schwacher Böschung, die das Innere des Gänsefjords (Gaasefjorden) umgeben, sind grösstenteils von Sandsteinen aufgebaut, die aber nur selten in den Steilabhängen und in den Flussbetten blossgelegt und zugänglich sind. An einigen dieser Lokalitäten habe ich Fossilien gefunden, und zwar an den Stellen, die an umstehender Kartenskizze Fig. 2 mit **1**, **2**, **3**, **4** und **5** bezeichnet sind.

„Der Sandstein, dessen Mächtigkeit wenigstens 600–700 Meter beträgt, hat ein flaches Fallen gegen NNW. Etwas südlich des auf der Kartenskizze (Fig. 2) dargestellten Gebiets und nach der Mündung des Fjordes hin ruht er mit konkordanter Lagerung auf eine Reihe von Kalksteinen und Schiefern, die ziemlich reich an Tierfossilien sind. Nach der Bestimmung Dr. JOHAN KIÆRS kündigen diese Fossilien einen hohen mitteldevonischen oder sogar oberdevonischen Horizont an.

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[1] A. G. NATHORST, Sverdrups polarexpedition 1898—1902. Ymer 1902, p. 533, Fussnote.

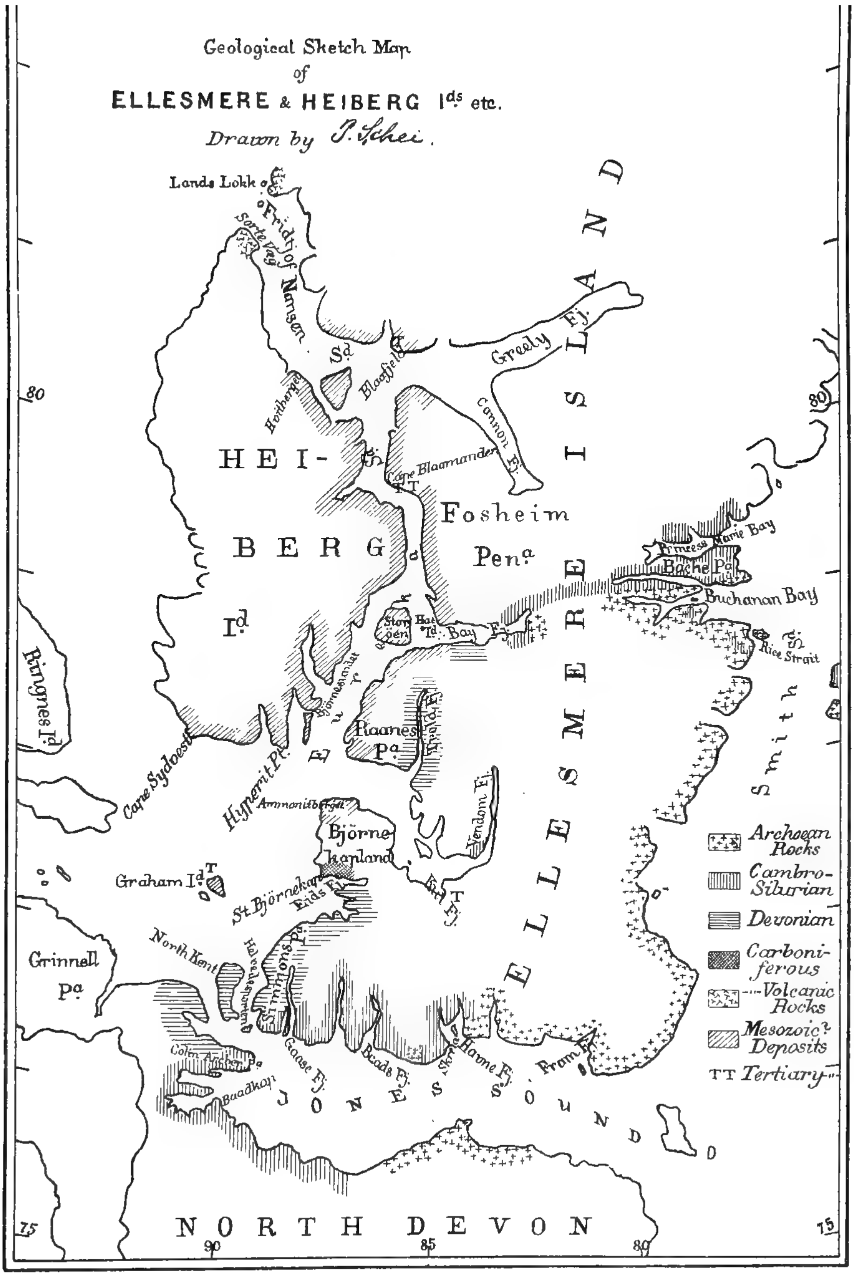


Fig. 1. Geologische Kartenskizze der Ellesmere- und Heiberg-Inseln.

Konglomerate sind klein und bestehen aus Quarz, öfters auch aus Thoneisenstein.

„An der auf der Kartenskizze mit **5** bezeichneten Lokalität und über der mittleren Höhe des Sandsteinprofils im inneren Teil des Gänsefjords kommt ein konglomeratartiger Sandstein vor, der eine Menge von schlecht erhaltenen Lamellibranchiaten — vielleicht *Modiola angusta* — neben häufigen Resten von *Holoptychius* und *Coccosteus* und dazu noch unbestimmbare Zweigabdrücke enthält.

„Weiter gegen das innere Ende des Fjordes ist ein zugängliches Profil an zwei Bachfurchen blossgelegt. Die südlichste derselben ist auf der Kartenskizze mit **1** bezeichnet. So weit man aus dem Fallen der Schichten — das Gebiet zwischen den beiden Lokalitäten ist von Schutt bedeckt — schliessen kann, gehört die Fundstätte **3** zu demselben Niveau wie **1**.

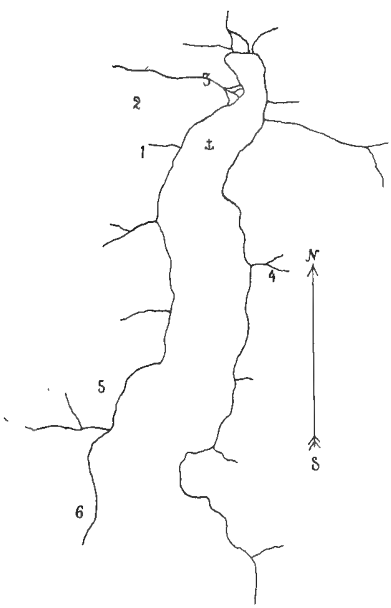


Fig. 2. Fossilfundstätten im innersten Teile des Gänsefjordes.

„Die Fundstätte **2** liegt unmittelbar über dem Profil bei **1**.

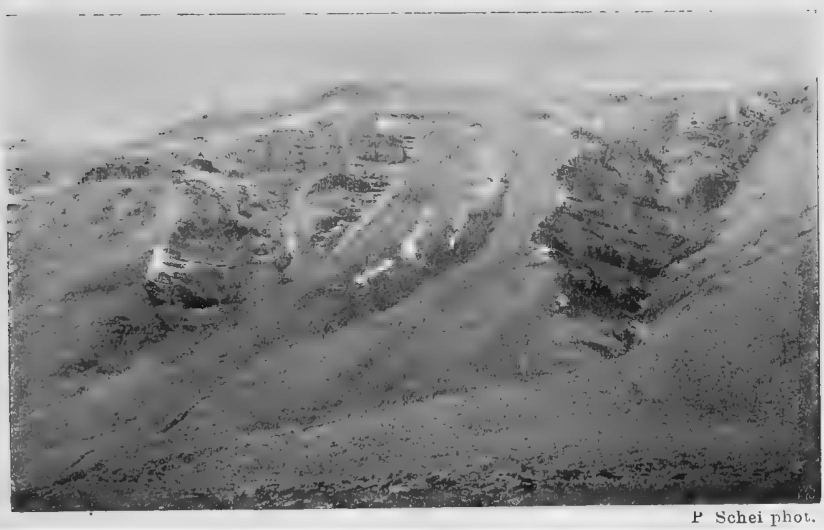
„Dieses Profil zeigt zu unterst einen feinkörnigen, weissen Quarzsandstein (*A* auf der Profilskizze Fig. 4), der von einer mergelartigen Thonmasse bedeckt wird. Dann folgen zwei Bänke von hellem Quarzsandstein, die durch unreinere Sandsteine und z. T. auch durch dunkle, sandige und glimmerreiche Schiefer von einander getrennt sind. Die Mächtigkeit dieser Partie (*B* auf der Skizze) dürfte etwa 40 Meter betragen.

„Nun folgt eine Schichtenreihe, die hauptsächlich von reinen, hellen Quarzsandsteinen, jedoch auch von dünnen, gewöhnlich nur wenige Centimeter mächtigen, sandigen Schiefern und ausserdem von vereinzelten Konglomeratschichten aufgebaut ist. Diese Konglomerate sind den vorher erwähnten im untersten Teil des Sandsteins ähnlich und sind ebenfalls von kleinen Quarz- oder Thoneisensteingeröllen zusammengesetzt.

„Diese Schichtenreihe, deren Gesamtmächtigkeit etwa 50 Meter beträgt, wird von einer ähnlichen etwa 0,2 Meter mächtigen Konglomerat-

schicht abgeschlossen und von einer etwa 2—3 Centimeter mächtigen Schicht von glänzenden anthracitartigen Steinkohlen bedeckt. Dünne Streifen ähnlicher Kohlen kommen übrigens an mehreren Stellen der beschriebenen Schichtenreihe vor.

„Nun folgt, über der erwähnten Kohlenschicht, eine etwa 15 Meter mächtige Bank von hellem Quarzsandstein, in deren unterem Teil nuss-



P. Schei phot.

Fig. 3. Rechts: Schlucht mit Fossilfundstätte 1, Gänsefjord.

und eigrosse Konkretionen in Reihen geordnet sind und grade da, wo sich der Bach zu einem Wasserfall anstaut, aus der senkrechten Steilwand des Sandsteins hervortreten.

„Höher oben ist alles vom Schutt bedeckt.

„Etwa in der Mitte der Schichtenreihe kam in der südlichen Wand des Profils, bei **C**, unmittelbar unter einer Bank von Sandstein eine lenticulare, seitwärts auskeilende, schwarze Schieferpartie vor. Die Länge derselben betrug 5 Meter, die grösste Mächtigkeit nur etwa 0,5 Meter. Die Hauptmasse, d. h. die oberen drei Viertel des Schiefers, war beinahe fossilleer, während die untersten 0,1—0,2 Meter reich an Pflanzenfossilien waren, die allerdings hauptsächlich aus Abdrücken langer, unverzweigter Stiel- oder Stengelreste bestanden,

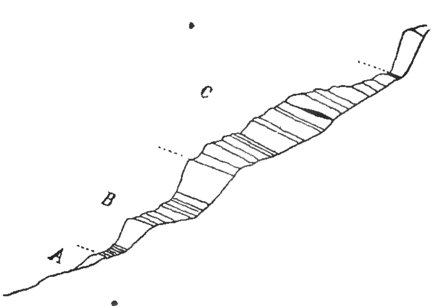


Fig. 4. Profil bei Fossilfundstätte 1. Gänsefjord.

zwischen denen aber auch verzweigte Stielreste und Blätterabdrücke erschienen.

„Alles von diesem Schiefer, was ohne all zu grosse Wegräumungsarbeiten zugänglich war, wurde von uns herausgenommen und in mehrtägiger Arbeit von 2—3 Männern weggeführt und an Bord gebracht.

„Die Fossilreste beschränkten sich nicht auf diesen Schiefer allein, vielmehr wurden auch im Sandstein der Abteilung **C** undeutliche Pflanzenreste beobachtet, und in den Konglomeraten kamen vereinzelte Bruchstücke von verwitterten, bunten Fischschuppen vor.

„Einige Tage nachher — im Spätherbste 1900 — entdeckten wir einige z. T. recht grosse und zusammengehäufte Stammabdrücke in einem glimmerreichen, unreinen Sandstein, etwas oberhalb der obersten Bank des Profils bei **1**, aber etwas weiter nördlich, und zwar in einer hervortretenden Partie des anstehenden Gesteins. Diese Lokalität ist die Fundstätte **2**.

„Die Fundstätte **3** ist eine Wand von anstehendem Gestein, das im Flussbett am Galgeodde (Galgenkap) entblösst ist.

„Zwischen zwei Bänken grauen Sandsteines kam hier eine, wie es scheinen wollte, lenticulare Partie eines schwarzen Schiefers vor, dessen grösste Mächtigkeit etwa 2 Meter betrug. Er keilte gegen Westen aus, während die Fortsetzung gegen Osten unter losen Schuttmassen verborgen war.

„Die Fossilreste an dieser Stelle waren ähnlicher Art wie bei **1**, und sie kamen auch wie dort hauptsächlich in der untersten Partie des Schiefers vor.

„Wie oben schon bemerkt, ruht die ganze Sandsteinreihe auf Schichten, die zu einer hohen Abteilung des Mitteldevons oder sogar zum Oberdevon gerechnet werden müssen. Über die obere Grenze der Reihe kann ich mich dagegen nicht äussern.

„Der Sandstein ist, mit flachem Fallen gegen WNW, von der Renntierbucht (Renbugten) bei Hell Gate, am Nordstrand (Nordufer) an der Nordküste vorbei, bis an die Ostseite des Eingangs in den Eidsfjord anstehend gefunden. Westlich des Eidsfjords treten Kalksteine auf, die am Store Bjørnekap (Grossen Bärenkap) Carbonfossilien enthalten. Ich fand keine Gelegenheit, die Grenze zwischen den beiden Formationen festzustellen.

„Dieselbe Sandsteinablagerung tritt ferner an der Südseite des Bay-Fjords auf. Ich glaubte hier dieselben undeutlichen Fossilreste und bituminösen Streifen in den lichtgrauen Sandsteinen wie an den Fundstätten **1** und **3**, ja sogar auch dieselbe Blätterabdrücke wie an diesen Lokali-

täten in den zwischenliegenden dünnen Schiefern erkennen zu können. Leider konnte ich bei der Vorbeifahrt keine Zeit für die Einsammlung der Fossilien disponieren.

„Wie viel oder wie wenig der übrigen längs des ganzen Eurekasundes auftretenden Sandsteinablagerungen von diesem Alter ist, kann ich nicht sagen. Verschiedene über diese ganze Gegend gemachte Funde von Fossilresten mesozoischen Alters machen es aber wahrscheinlich, dass die Hauptmasse der dortigen Sandsteine jünger ist.“

Zu dieser ausführlichen Mitteilung habe ich nichts anderes hinzuzufügen, als dass die Behauptung des Herrn Schei, die Fossilreste der Lokalitäten **1** und **3** enthielten dieselben Arten, vollkommen richtig ist. Doch habe ich auf den Tafeln die Abbildungen nach den einzelnen Lokalitäten geordnet.

Beschreibung der Arten.

Lyginodendron J. Gourlie.

Mit diesem Namen wurden von J. GOURLIE seiner Zeit einige durch die unten zu erwähnende Skulptur ausgezeichnete Abdrücke von Rindenflächen beschrieben. Als WILLIAMSON später einige Stammreste mit noch erhaltener Struktur untersuchte, konnte er darlegen, dass die Skulptur der von Gourlie beschriebenen Gegenstände durch den eigentümlichen Bau gewisser Rindenlagen bedingt war. Die parenchymatische Grundmasse der Rinde war nämlich durch radiale, hin und her gebogene, mit einander anastomosierende Platten von Stereiden durchsetzt, die also spindel- oder linsenförmige Stücke der Grundmasse umschlossen. Da diese Grundmasse bei der Fäulnis oder Fossilwandelung zerstört, während die Stereidenplatten als mehr widerstandsfähig dagegen aufbewahrt wurden, müssen die Abdrücke solcher Rindenplatten die von GOURLIE beschriebene Skulptur erhalten. WILLIAMSON führte deshalb den von ihm beschriebenen Stamm, der diese Struktur der Rinde zeigte, als *Lyginodendron Oldhamianum* auf[1].

Es hat sich aber später erwiesen, dass auch andere Stämme von verschiedener systematischer Stellung einen analogen Bau der Rinde haben können. Während WILLIAMSONS *Lyginodendron Oldhamianum* zu den Farnen oder Cycadophytenfarnen (*Cycadofilices*) gerechnet wird, kommt nämlich ein lyginodendroider Bau der Rinde auch bei Lepidophyten, ja mitunter sogar bei Calamariaceen vor. POTONIÉ hat deshalb mit Recht[2] die von WILLIAMSON beschriebenen Stammreste mit noch erhaltener Struktur als *Lyginopteris* bezeichnet, während *Lyginodendron* für Rindenplatten im allgemeinen — oder Abdrücke derselben — mit der erwähnten Aussenskulptur behalten wird. Dieser Name ist selbstverständlich provisorisch und sagt nichts über die systematische Stellung der betreffenden Reste.

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[1] WILLIAMSON, On the organisation of the fossil plants of the coal-measures. Part 4. Phil. Transactions. 1873, p. 377.

[2] POTONIÉ, Lehrbuch der Pflanzenpalaeontologie. Berlin 1899.

Lyginodendron Sverdrupi n. sp.

Taf. 1, Fig. 1; Taf. 2, Fig. 1 und 2.

Von den beiden Lokalitäten 1 und 3, insbesondere aber von jener, hat Herr SCHEI mehrere Stücke lyginodendroider Rindenplatten mitgebracht, die sowohl durch ihre Grösse wie durch ihren Bau von den schon bekannten beträchtlich abweichen. Was die Grösse derselben betrifft, so liegen ausser den abgebildeten andere vor, die noch grössere Dimensionen ankündigen. Es lässt sich also nicht bezweifeln, dass es sich um Rindenreste einer baumartigen Pflanze handelt. Sämtliche Stücke stimmen hinsichtlich ihres Baues mit einander überein, obschon sie im allgemeinen mehr oder weniger zerrissen sind. Es ist nämlich offenbar, dass die leeren Räume zwischen den mutmasslichen Stereidenplatten als Ausgangsstellen fernerer Risse und Zerstörungen gedient haben, weshalb die ursprüngliche Form dieser Räume nur hier und da zu erkennen ist. Man dürfte jedoch annehmen können, dass dieselbe auf Taf. 1, Fig. 1, links und auf Taf. 2, Fig. 2, unten zum Vorschein kommt.

Von den hisher beschriebenen lyginodendroiden Rindenplatten weichen die vorliegenden dadurch ab, dass das parenchymatische Grundgewebe sehr zurückgedrängt ist, d. h. die (Stereiden-)platten, die übrigens mehr in tangentialer als in radialer Richtung entwickelt zu sein scheinen, walten bedeutend vor, während sie sonst gegen das Grundgewebe zurückzutreten pflegen. Doch bildet WILLIAMSON auf seiner Tafel 27 zwei *Dictyoxylon*-Stücke (Fig. 28 und 29) ab, bei denen das Grundgewebe ebenfalls sehr zurückgedrängt zu sein scheint, obschon allerdings bei weitem nicht in solchem Grade wie bei den vorliegenden Exemplaren. Was diese betrifft, sei übrigens bemerkt, dass die (Stereiden-)Platten stark verkohlt sind und eine eigentümliche längsrunzelige Skulptur besitzen.

Da ähnliche Rindenplatten meines Wissens bisher nicht bekannt waren, wandte ich mich an die Herren R. ZEILLER in Paris und A. C. SEWARD in Cambridge, um zu erfahren, ob sie wohl etwas Ähnliches gesehen hätten. Herr ZEILLER teilte mir mit, dass er keine ähnlichen Gegenstände kenne, sprach aber wegen des lyginodendroiden Baues und der sonstigen Beschaffenheit derselben die Meinung aus, dass es sich am wahrscheinlichsten um Reste von Farnen oder Cycadophytenfarnen (Cycadofilicineen) handeln dürfte, und dass er zunächst an Stämme vom Typus der *Sphenopteris Hoeninghausii* oder *Sph. distans* denke, die ja als wahrscheinlich zu den Cycadofilicineen gehörend aufgefasst werden.

Herr SEWARD schrieb, dass die Abbildungen ihn etwas an einen grossen Abdruck auf einer Sandsteinplatte aus den Coal-Measures erinnere, der zu *Sigillaria* oder *Lepidodendron* gehören dürfte. Da aber, wie oben erwähnt, ein lyginodendroider Bau bei ganz verschiedenen Pflanzen vorkommen kann, lässt sich selbstverständlich nichts Bestimmtes über die systematische Stellung unseres *Lyginodendron Sverdrupi* folgern.

Es dürfte jedoch das wahrscheinlichste sein, dass es sich hier um Reste von Farnen oder Cycadophytenfarnen handelt, da ja keine Lepidophyten oder Calamitaceen hier vorkommen. Endgiltig wird eine solche Schlussfolgerung allerdings nicht, denn die Abwesenheit der erwähnten Fossilien kann ja eine zufällige sein. Wir müssen also gegenwärtig die Frage über die systematische Stellung der betreffenden Gegenstände offen lassen.

Vorkommen. Lokalität 1 und 3, besonders an jener.

Lyginodendroide Rinde.

Taf. 7, Fig. 5, 6.

Das Exemplar besteht aus dicht gedrängten, hin und her gebogenen, mit einander zuweilen anastomosierenden, kaum millimeterbreiten verkohlten Bändern, die bei Vergrösserung (Fig. 6) feine Längsstreifen zeigen. Der Fossilrest dürfte als eine Rindenplatte mit lyginodendroidem Bau aufgefasst werden können.

Vorkommen. Lokalität 3. Ein einziges Exemplar.

Stengelreste von unbestimmter systematischer Stellung.

A.

Taf. 4, Fig. 1.

Fragment eines breiten Stengels, mit ziemlich regelmässiger Längsrippung, infolgedessen man sogar an einen *Asterocalamites*-Rest denken könnte. Da aber keine Gliederung vorhanden ist — was ja freilich nur durch die fragmentarische Beschaffenheit des Stückes bedingt sein kann — lässt es sich nicht entscheiden, ob diese Ähnlichkeit eine zufällige ist oder nicht. Um eine calamatoide *Knorria* handelt es sich jedenfalls nicht.

Vorkommen. Lokalität 1.

B.

Taf. 4, Fig. 2.

Auch über diesen Rest lässt sich wenig sagen. Die Rippen sind in der Wirklichkeit etwas regelmässiger als die Abbildung wiedergiebt. Die Ähnlichkeit mit einer calamitoiden *Knorria* ist etwas grösser, ohne dass es jedoch eine zu sein scheint.

Vorkommen. Lokalität 2.

C.

Taf. 4, Fig. 3, 4.

Die beiden Abbildungen stellen verschiedene Teile eines und desselben etwa 47 Centimeter langen Stammstücks vor. Sie dürften wohl als die zusammengepressten Ausfüllungen eines Markrohrcylinders mit dem Abdruck des umgebenden Holzes betrachtet werden können. An der Partie Fig. 4, die den unteren Teil des Stammstücks darstellt, ist der Abdruck des Holzes auf den beiden Seiten des Markrohrs zu sehen, während es an der Partie Fig. 3 auf der rechten Seite fehlt. Die Ausfüllung des Markrohrs zeichnet sich sowohl durch unregelmässige Längsstreifen wie besonders durch transversal gestellte, mitunter gabelige und mit einander anastomosierende Eindrücke aus, die in einigen Partien noch schärfer zum Ausdruck kommen, als die Zeichnungen zeigen[1]. Wir haben es also zweifelsohne mit einem Stamme zu thun, dessen weite Markrohrausfüllung eine *Artisia*-ähnliche Skulptur besessen hat und der wohl also von einem *Cordaites* oder von einer mit diesem verwandten Gattung stammt, was nicht befremden kann, da *Cordaites* schon vorher als im Devon vorkommend angegeben ist.

Vorkommen. Lokalität 2.

D.

Taf. 5, Fig. 1.

Es ist wahrscheinlich, dass dies Stammstück, das mit dem vorigen zusammen gefunden ist, zu derselben Art gehört, obschon die transversalen Eindrücke fehlen, was vielleicht davon abhängt, dass die unmittelbar an das Markrohr grenzende Fläche des Holzes zerstört war, weshalb es

[1] Da die Eindrücke auf der rechten Seite der Fig. 4 etwas an die Risse der Kohle von stark verkohlten Stämmen erinnert, will ich besonders hervorheben, dass es sich nicht um solche Risse handelt.

sich um den Abdruck einer angrenzenden Holzschicht handelt. Ich vermute dies, weil das Stück C stellenweise Andeutungen einer ähnlichen Längsskulptur zeigt.

V o r k o m m e n. Lokalität 2.

E.

Taf. 5, Fig. 2.

Stengelstück mit Ast, vielleicht eines Farnes.

V o r k o m m e n. Lokalität 3.

F.

Taf. 5, Fig. 3.

Stengelrest mit lyginodendroider oder sogar tylodendroider Skulptur.

V o r k o m m e n. Lokalität 3.

G.

Taf. 5, Fig. 4, 5.

Stachelige Stengelreste, wie sie häufig im Culm und im Oberdevons vorkommen. Am Exemplar Fig. 4 ist die Austrittstelle eines Astes angedeutet. Diese Reste rühren wohl von Farnen oder Cycadophytenfarnen her.

V o r k o m m e n. Lokalität 3.

Archaeopteris Dawson.

Archaeopteris Archetypus Schmalhausen.

Taf. 1, Fig. 2—5; Taf. 2, Fig. 3—5; Taf. 6, Fig. 1—16.

Archaeopteris Archetypus SCHMALHAUSEN, Ueber devonische Pflanzen aus dem Donetz-Becken S. 22, Taf. 1, Fig. 9; Taf. 2, Fig. 15—22. (Mém. Com. Géol. Vol. 8, No. 3. St. Petersburg 1894).

Archaeopteris Archetypus NATHORST in Sverdrup, Nyt Land, Vol. 2, S. 369. (Textfigur).

Die grosse Übereinstimmung, die zwischen den Exemplaren des Ellesmere-Landes und den von SCHMALHAUSEN abgebildeten aus dem Donetz-Becken zu bestehen scheint, dürfte zu der Annahme berechtigen, dass es sich um dieselbe Art handelt. Doch habe ich hier keine fertilen Exemplare mit so vollkommen einseitig gestellten Sporangien wie die

von SCHMALHAUSEN auf seiner Taf. 2, Fig. 19—21 abgebildeten beobachtet, und ebensowenig habe ich fertile Fiederchen gefunden, die nur an ihrem unteren Teile die Sporangien tragen, während ihre Spitze noch blattartig ausgebildet ist. Es ist aber hiebei zu bemerken, dass ich überhaupt keine fertilen Fiedern in Verbindung mit sterilen beobachtet habe, weshalb ich also nicht zu behaupten wage, dass fertile Fiedern von der betreffenden Art vorliegen. Denn es ist ja möglich, dass sie sämtlich zu *Archaeopteris fissilis* gehören. Überhaupt sind die fertilen Fiedern meistens recht schlecht erhalten.

Dass SCHMALHAUSENS Angabe über die einseitige Stellung der Sporangien ganz richtig ist, davon habe ich mich an Exemplaren aus Donetz überzeugen können, die ich durch die Liebenswürdigkeit des Herrn Akademikers TH. TSCHERNYSCHEW aus dem Museum der Kaiserl. Akademie der Wissenschaften zu Petersburg zum Vergleichen bekommen habe. Die Sporangien sind überdies relativ lang und schmal.

SCHMALHAUSEN hebt als besondere Eigentümlichkeit bei *Archaeopteris Archetypus* den Umstand hervor, „dass die Fiederchen quer an der Spindel und spiralförmig, höchst wahrscheinlich nach $^2/_5$ Divergenz angeheftet gewesen sind“. Die Belegstücke, die als Beweise für eine solche Annahme dienen sollen, erscheinen aber kaum überzeugend. Wenn man die Grösse der Fiederchen und die Schmalheit der Spindel (der Fieder), besonders gegen die Spitze derselben hin, bedenkt, so ist es ja verständlich, dass die Fiederchen, auch wenn sie den Seiten der Spindel angeheftet sind, sich leicht über dieselbe biegen können.

SCHMALHAUSENS Abbildungen beziehen sich ja sämtlich auf Bruchstücke apicaler Teile der Fiedern. Sie entsprechen etwa unseren Exemplaren auf Taf. 1, Fig. 4 und auf Taf. 6, Fig. 9, 14 und 15. Was das Exemplar Fig. 9 betrifft, so kann man jedoch sehr deutlich beobachten, dass die Fiederchen entgegengestellten Seiten der Spindel angeheftet sind (Fig. 12 und 13 vergrössert), und wenn man ferner die Exemplare Taf. 6, Fig. 8 und 10 betrachtet, deren Fiederchen beinahe gegenständig sind und an der Spindel herablaufen, so wird es einleuchtend, dass die Fiederchen an der Spindel keine spiralige Stellung eingenommen haben. Auch die Exemplare Taf. 1, Fig. 2 und 3 sprechen dafür, dass die Fiederchen in derselben Weise wie die anderen Arten der Gattung der Fiederspindel angeheftet waren.

Soweit man aus SCHMALHAUSENS Abbildungen urteilen kann, stimmt die Pflanze des Ellesmere-Landes im Bau der Fiederchen vollständig mit der Art des Donetz-Beckens überein. Man vergleiche z. B. unsere Fig. 4 und 5 auf Taf. 1 oder Fig. 5 auf Taf. 2 mit SCHMALHAUSENS Taf. 2,

Fig. 20, oder unsere Fig. 7, 9 und 11 auf Taf. 6 mit seinen Fig. 15—18. Wir haben in der Sammlung vom Ellesmere-Land allerdings kein so grosses Fiederchen wie seine Textfigur Fig. 1 beobachtet, das ja aber auch bei Donetz zu den Seltenheiten zu gehören scheint. Einige Exemplare aus Donetz, die mir TSCHERNYSCHEW gütigst zum Vergleichen geschickt hat, stimmen mit den unsrigen gut überein. Die Fiederchen sind mitunter etwas asymmetrisch (Taf. 1, Fig. 2; Taf. 6, Fig. 14), was auch bei der Pflanze von Donetz nach den mir vorliegenden Exemplaren der Fall sein kann und von der Stellung der Fiederchen an der Spindel abhängt. Es scheint also kein Grund vorzuliegen, die Pflanze des Ellesmere-Landes von der des Donetz-Beckens als besondere Art zu trennen.

Die Fiederchen der vorliegenden Art scheinen symmetrischer als bei *A. hibernica* Forbes sp. und bei *A. obtusa* Lesq. sp. zu sein. Die Fiederchen von *A. Gaspiensis* Dawson, von der ich seiner Zeit Exemplare von DAWSON selbst bekommen habe, sind gewöhnlich etwas kleiner und ihr Stiel ist wenig deutlich, aber auf alle Fälle breiter als bei *A. Archetypus.* Immerhin muss zugestanden werden, dass es eine undankbare Aufgabe ist, sich über die verschiedenen amerikanischen *Archaeopteris*-Arten auszusprechen, denn die Beschreibungen und Abbildungen derselben sind noch immer viel zu unvollständig, um sichere Schlussfolgerungen zu erlauben. Es könnte allerdings eigentümlich erscheinen, dass die betreffende Pflanze des Ellesmere-Landes sich am nächsten an eine Art aus Süd-Russland und nicht an eine amerikanische Art anschliesst, wobei jedoch zu bemerken ist, dass die unten zu beschreibende Art zu einem Typus gehört, der bisher ebenfalls nur aus Süd-Russland bekannt war, während er in Amerika bisher nirgends zum Vorschein gekommen ist. Das Vorkommen von *Archaeopteris Archetypus* ist unter solchen Umständen weniger befremdend.

Wie KIDSTON[1] zuerst für *Archaeopteris hibernica* und ich dann für *A. fimbriata* und *A. Roemeriana* nachgewiesen haben, ist die Blattspindel zu unterst mit zwei Nebenblättern versehen. „Eigentümlich ist nur,“ heisst es bei mir[2], „dass die Nebenblätter mit dem Blatte zusammen und noch am Blattstiel haftend vom Stamme abgefallen sind, während es sich bei den jetzigen Marattiaceen anders verhält.“ Bei diesen löst sich bekanntlich die Basis des die Lamina tragenden Blatt-

[1] R. KIDSTON, On the fructification and internal structure of carboniferous ferns. Trans. Geol. Soc. Glasgow, vol. 9. 1889.

[2] A. G. NATHORST, Zur oberdevonischen Flora der Bären-Insel. Svenska Vetensk. Akad. Handlingar Bd. 36, No. 3. Stockholm 1902.

stiels oberhalb des etwas verdichten, von den Nebenblättern umgebenen Teiles ab, der mit den Nebenblättern lange am Stamme sitzen bleibt.

Auch aus Ellesmere-Land liegen Exemplare vor, deren Basis mit zwei Nebenblättern, ganz wie bei *A. hibernica* und *A. Roemeriana,* versehen sind (Taf. 6, Fig. 1, 2, 4), während sie noch dazu einen ganz eigentümlichen Bau zeigen. Der Teil des Stieles oberhalb der Nebenblätter trägt nämlich breite *Cyclopteris*-ähnliche Fiedern, die wohl als Aphlebien aufzufassen sind. Ich habe schon in meiner fossilen Flora der Bären-Insel (pag. 21) dargelegt, dass die Blattspindel von *A. Roemeriana* unterhalb der ersten Fiedern einige regelmässig gestellte schuppenartige Spreiten trägt, die ich für etwas transformierte Zwischenfiedern[1] halten möchte. Nach einem Exemplare zu urteilen, „möchte es scheinen, als wäre ihre Stellung nicht zweiseitig, sondern spiralig." Dies ist nun bei den hier vorliegenden Aphlebien entschieden der Fall (Taf. 2, Fig. 3; Taf. 6, Fig. 1—6), und sie scheinen noch dazu an der Spindel mit umfassender und herablaufender Basis quer gestellt zu sein. Besonders eigentümlich erscheint das Exemplar Taf. 6, Fig. 6: die Nebenblätter erstrecken sich hier weit an der Spindel hinauf, so dass diese wie geflügelt erscheint. Wie aus den Abbildungen erhellt, sind übrigens die Exemplare ziemlich unvollständig, es lässt sich aber nicht bezweifeln, dass diese *Cyclopteris*-ähnlichen Aphlebien eine dicht gedrängte Stellung am Basalteil der Spindel unterhalb der Fiedern eingenommen haben, während sie höher oben durch die Zwischenfiedern ersetzt wurden. Es sei allerdings bemerkt, dass keine Exemplare vorliegen, die die Aphlebien-tragenden Spindelreste noch mit *Archaeopteris Archetypus* verbunden zeigen, doch dürfte es kaum bezweifelt werden können, dass beide zusammengehören, obschon ja der Umstand, dass sie zusammen vorkommen, diese Zusammengehörigkeit nicht sicher beweist.

Vorkommen. An den Lokalitäten 1 und 3, recht häufig.

Archaeopteris fissilis Schmalhausen erweitert.

Taf. 2. Fig. 6—9; Taf. 3; Taf. 7, Fig. 1—4.

Archaeopteris fissilis Schmalhausen, Ueber devonische Pflanzen aus dem Donetz-Becken, S. 27, Taf. 1, Fig. 1—8. (Mém. Com. Géol. Vol. 8, No. 3. St. Petersburg 1894).

[1] Diese Benennung wurde von mir in der erwähnten Arbeit (p. 18) vorgeschlagen, was wohl Potonié übersehen hat, da er denselben Namen für dasselbe Organ in seiner Arbeit „Zur Physiologie und Morphologie der fossilen Farn-Aphlebien", Ber. d. deutsch. Bot. Ges. 21 (1903), p. 152, vorschlägt.

Archaeopteris fissilis Nathorst in Sverdrup, Nyt Land, Vol. 2, S. 312 (Textfigur).

Die unter diesem Namen von SCHMALHAUSEN beschriebene Art ist durch die feingeteilten Fiederchen mit „fast borstenförmigen Zipfeln" (Schmalh.) ausgezeichnet. Die Teilung der Fiederchen ist eine wiederholte, jedoch mitunter etwas unregelmässige Gabelung. Die Zwischenfiedern sind wie die übrigen Fiederchen gebaut.

Die Exemplare aus Ellesmere-Land weichen dadurch von der von SCHMALHAUSEN beschriebenen Art insofern ab, als die Zahl der Lappen der Fiederchen weitaus grösser ist. SCHMALHAUSEN giebt höchstens 8 Lappen an, während die vorliegenden Exemplare deren 12 oder vielleicht noch mehr zeigen können. Da die Übereinstimmung sonst gut ist, scheint es mir jedoch nicht richtig, die vorliegende Pflanze von der russischen Art zu trennen, und zwar um so weniger, als die aus dem Donetz-Becken stammenden Exemplare ja verhältnismässig klein und fragmentarisch sind und es also wohl möglich ist, dass kräftigere Exemplare dieser Lokalität eine grössere Übereinstimmung mit den unsrigen gezeigt haben würden.

Es kommen hier einige Eigentümlichkeiten vor, die eine besondere Erwähnung verdienen. Einige Fiedern (oben links) des grossen Exemplars der Taf. 3 (in etwa 3/5 der natürlichen Grösse wiedergegeben), dessen Erhaltung allerdings hätte besser sein können, scheinen nämlich gegabelt zu sein, was ich sonst überhaupt niemals beobachtet habe. Dass diese Gabelung nicht auf einer zufälligen Spaltung beruht, geht aus dem Umstand hervor, dass auch die Gabeläste an ihren beiden Seiten Fiederchen tragen. Eigentümlich ist auch das Exemplar Taf. 7, Fig. 1, an dessen rechter Seite die Fiederchen so dicht gedrängt erscheinen, als ob sie eine spiralige Stellung an der Fieder eingenommen hätten. Da aber das Exemplar nicht gut erhalten ist, lassen sich keine Details mit Sicherheit ermitteln.

Sowohl das grosse Exemplar der Tafel 3, als auch das Exemplar der Taf. 7, Fig. 4, zeigen Fiedern, die fertil sind. Auf jenem nehmen die fertilen Fiedern den untern Teil des Wedels ein, während die Fiedern des oberen Teiles sämtlich steril sind, was ja auch bei *Archaeopteris Roemeriana* und *A. fimbriata* vorkommt. An dem Exemplar Taf. 7, Fig. 4 sind die Fiederchen an der Basis der Fiedern steril, während sie gegen die Mitte und Spitze hin fertil sind. Über den Bau der fertilen Fiederchen lässt sich nichts Neues sagen, da sie im allgemeinen nicht gut erhalten sind.

Von den übrigen bisher bekannten *Archaeopteris*-Arten steht *A. fimbriata* Nath. aus der Bären-Insel der vorliegenden am nächsten, unterscheidet sich aber von derselben dadurch, dass die Fiederchen derselben immer eine deutliche Lamina besitzen.

Vorkommen. Lokalitäten 1 und 3.

Fertile Archaeopteris-Fiedern.

Taf. 6, Fig. 17—19.

Da die fertilen Fiedern vereinzelt vorkommen, lässt es sich nicht immer sagen, zu welcher von den beiden Arten sie gehören. Das abgebildete Exemplar ist eines von den am besten erhaltenen und lässt, wie die vergrösserten Abbildungen 18 und 19 zeigen, den gewöhnlichen Bau und die gewöhnliche Aussenskulptur der „Sporangien" erkennen. Dass dies wirklich Sporangien sind, lässt sich allerdings ohne Kenntnis ihres inneren Baues nicht beweisen, und angesichts der jüngsten Überraschungen in Bezug auf die systematische Stellung gewisser paläozoischer Pflanzen, die bisher als Farne aufgefasst wurden, dürfte es am klügsten sein, die Frage über die nähere systematische Stellung von *Archaeopteris* vorläufig als eine noch offene zu betrachten.

Vorkommen. Fertile *Archaeopteris*-Fiedern kommen an beiden Lokalitäten 1 und 3 vor.

Sphenopteridium Schimper.

Cfr. *Sphenopteridium Keilhaui Nathorst.*

Taf. 7, Fig. 7.

Sphenopteridium Keilhaui Nathorst, Zur oberdevonischen Flora der Bären-Insel p. 15, Taf. 2, Fig. 3—13. (K. Sv. Vetenskaps-Akademiens Handlingar, Bd. 36, No. 3, Stockholm 1902).

Da nur das abgebildete Fiederchen gefunden ist, lässt sich selbstverständlich nicht mit völliger Sicherheit behaupten, dass es sich um einen Rest von *Sphenopteridium Keilhaui* handelt, obschon die Übereinstimmung mit demselben vollständig zu sein scheint. Diese Art war bisher nur aus den oberdevonischen Schichten der Bären-Insel bekannt.

Vorkommen. Lokalität 3.

Rückblick.

Obschon die Zahl der oben beschriebenen Arten eine sehr geringe ist, gewähren dieselben jedoch sowohl in botanischer als auch in pflanzengeographischer und geologischer Hinsicht ein nicht geringes Interesse. In botanischer Hinsicht verdient *Lyginodendron Sverdrupi* deshalb besonders erwähnt zu werden, weil es das Vorkommen einer bisher wahrscheinlich unbekannten Pflanze der jüngeren Devonzeit anzukündigen scheint. Auch die Stammreste, die zu *Cordaites* oder zu einer mit diesem verwandten Pflanze zu gehören scheinen, dürften bei dieser Gelegenheit nicht unerwähnt bleiben. Das Vorkommen der *Cyclopteris*-ähnlichen Aphlebien an dem basalen Teil der Blattspindel von *Archaeopteris Archetypus* hat ebenfalls ein Interesse. Es darf ausserdem nicht unberücksichtigt bleiben, dass die betreffenden Pflanzenfossilien in keiner Hinsicht andere klimatologische Verhältnisse als die gleichzeitig in Europa herrschenden ankündigen; die *Archaeopteris*-Arten erscheinen vielmehr kräftiger entwickelt als die Exemplare aus Donetz, was ja allerdings zufällig sein kann. Auffallend ist der Umstand, dass, obschon so viele *Archaeopteris*-Reste aus dem nordamerikanischen Kontinent bekannt sind, doch unter denselben kein Vertreter des *A. fissilis*- oder *A. fimbriata*-Typus vorkommt. Dieser ist vielmehr bisher nur aus dem Donetz-Becken, der Bären-Insel und dem Ellesmere-Lande bekannt.

Dass die Pflanzenreste der Lokalitäten 1 und 3 in unmittelbarer Nähe der Ablagerung gewachsen sind, ist offenbar, und es muss also hier während der jüngsten Devonzeit Land existiert haben, was ja übrigens auch durch das Vorkommen der kleinen Kohlenflöze bestätigt wird. Über die Ausdehnung dieses Landes kann ich mich selbstverständlich nicht äussern. Dagegen machen die Stammreste der Lokalität 2 den Eindruck, als wären sie dahin geschwemmt, und es wäre wohl möglich, dass die betreffende Ablagerung sich in einem Meere oder einem Aestuarium abgesetzt hätte.

Tafelerklärungen.

Tafel 1.

Fig. 1. *Lyginodendron Sverdrupi* Nath. S. 11. Grosse Rindenpartie.
— 2—5. *Archaeopteris Archetypus* Schmalh. S. 14. 2, Fragment der Hauptspindel mit Resten der Fiedern; 3, Fragmente mehrerer Fiedern von derselben Seite der Hauptspindel; 4, Fragmente mittlerer Partieen von zwei Fiedern; 5, Einzelnes Fiederchen.

Sämtliche Stücke stammen aus der Lokalität 1.

Tafel 2.

Fig. 1, 2. *Lyginodendron Sverdrupi* Nath. S. 11.
— 3—5. *Archaeopteris Archetypus* Schmalh. S. 14. 3, Basalteil der Hauptspindel mit *Cyclopteris*-Aphlebien; 4, Fragment des apikalen Teiles einer Fieder 5, Hauptspindel mit Fiederfragmenten.
— 6—9. *Archaeopteris fissilis* Schmalh. S. 17. 6, 7, Teile der Hauptspindel mit Fiedern; 8, Fiederfragment mit zwei Fiederchen; 9, ein Fiederchen des Vorigen in $1^1/_2$-facher Vergrösserung.

Sämtliche Stücke stammen aus der Lokalität 1.

Tafel 3.

Archaeopteris fissilis Schmalh. S. 17. Grosses Wedelstück, unten fertil, oben steril, in etwa $^3/_5$ der natürlichen Grösse.

Das Stück stammt aus der Lokalität 1.

Tafel 4.

Fig. 1. *A.* S. 12. Unbestimmbarer Stengelrest.
— 2. *B.* S. 13. Unbestimmbarer Stengelrest.
— 3, 4. *C.* S. 13. Stammstücke, verschiedene Teile desselben Exemplars, das wahrscheinlich zu einem *Cordaites* gehört.

Das Exemplar Fig. 1 stammt aus der Lokalität 1, die übrigen Stücke aus der Lokalität 2.

Tafel 5.

Fig. 1. *D.* S. 13. Stammstück.
— 2. *E.* S. 14. Stengelrest, links mit einem Aste,

Fig. 3. *F.* S. 14. Stengelrest.
— 4, 5. *G.* S. 14. Stachelige Stengelreste.

Das Exemplar Fig. 1 stammt aus der Lokalität 2, die übrigen aus der Lokalität 3.

Tafel 6.

Fig. 1—16. *Archaeopteris Archetypus* Schmalh. S. 14. 1—6, Basalteile der Hauptspindel mit Nebenblättern (1, 2, 4, 6) und *Cyclopteris*-ähnlichen Aphlebien; 7, Teil einer Fiederspindel mit zwei Fiederchen; 8, Fragment der Hauptspindel mit Zwischenfiedern und zwei gegenständigen, herablaufenden Fiederchen an der Fiederspindel rechts; 9, Fragment einer Fieder mit scheinbar spiraliger Stellung der Fiederchen nach der Spitze hin; 10, Fiederfragment mit zwei gegenständigen und herablaufenden Fiederchen; 11, Platte mit mehreren, verhältnismässig grossen Fiederchen; 12, 13, Partieen des Exemplars Fig. 9, in $1^1/_2$- und 3-facher Vergrösserung, um die Anheftung der gestielten Fiederchen an der Fiederspindel zu zeigen; 14, drei etwas schiefe Fiederchen in ihrer ursprünglichen Stellung, die Fiederspindel selbst ist im Gestein verborgen; 15, Fiederfragment vom apikalen Teil der Fieder; 16, Teil einer Hauptspindel mit Fragmenten von Fiedern.
— 17. Fertile *Archaeopteris*-Fieder. S. 19.
— 18. Drei „Sporangien“ in 2-facher Vergrösserung.
— 19. Ein „Sporangium“ stark vergrössert, die charakteristische Skulptur der Aussenfläche zeigend.

Sämtliche Stücke stammen aus der Lokalität 3.

Tafel 7.

Fig. 1—4. *Archaeopteris fissilis* Schmalh. S. 17. 1, Partie eines Wedels, dessen Fiedern rechts durch die dicht gedrängte Stellung der Fiederchen ausgezeichnet sind; 2, 3, Fiederfragmente mit verhältnismässig grossen Fiederchen; 4, Partie eines Wedelstücks mit fertilen Fiedern, dessen basale Fiederchen jedoch steril sind.
— 5. Lyginodendroide Rinde. S. 12.
— 6. Partie der Vorigen, vergrössert.
— 7. *Sphenopteridium Keilhaui* Nath. S. 19. Fiederchen.

Sämtliche Stücke stammen aus der Lokalität 3.

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Th. Ekblom del.

Ljustr. A.B. Lagrelius & Westphal Stockh.

REPORT OF THE SECOND NORWEGIAN ARCTIC EXPEDITION
IN THE "FRAM" 1898—1902. No. 2.

H. G. SIMMONS:

THE VASCULAR PLANTS
IN THE
FLORA OF ELLESMERELAND

WITH 10 PLATES, 5 FIGURES AND ONE MAP IN THE TEXT

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1906

Introduction.

The northernmost great island of the Arctic American Archipelago was first sighted in 1616 by Baffin and Bylot and got its first name, Ellesmereland, that is, the first apart from the Eskimo name "Umingma nuna", the land of the muskoxen, which is probably of very much older origin. The next European who visited these parts was Captain, afterwards Sir, John Ross, who sailed up to Smith Sound in the "Isabella", 1818. Both expeditions, however, only sighted the land from their ships, no landings were made. Then, in 1851, two of the ships in the expedition in search of Sir John Franklin under the command of Sherard Osborn and Cator, went into Jones Sound, and the first landing was effected on the south coast of Ellesmereland, not however on the mainland but on Cone Island. Again, in 1852, a search-expedition visited the same parts under the command of Inglefield, who went further up Smith Sound than his predecessors had done, and looked into the great basin to the north, where also points of a coast were visible to the north-west, which was afterwards regarded as belonging to another island, but he did not land on the west side of the Sound.

The first map of the south coast was drawn by the officers of the above-mentioned expedition in 1851. It gives only the eastern parts of both coasts of Jones Sound, and is so far very well in accordance with the true trend of the coast. Such is not the case with the map of Inglefield from 1852, his additions to the chart being almost entirely wrong. He has, however, placed an island, Sir Inglis Peak, about 84—85° W., close to the coast of Ellesmereland. Now a considerable island really exists, and even if its relative position to the coast is another than in Inglefield's map, still I think his name for it must be kept. Consequently I use it instead of the later name "Skreia" of Sverdrup (Neues Land).

During the next expedition to Smith Sound, that of KANE in 1853—55, the western ("American") side was first visited, not, however, the southern part, Ellesmereland proper, but the region to the north-west of Kane Basin, which was now named Grinnell Land. It was Dr. HAYES, who made that short trip along the shore, and on his return journey, he followed the coast southwards so as to come very near to the Bache Peninsula and look into Buchanan Strait of INGLEFIELD, which he took to be a sound running westwards and separating Ellesmere- and Grinnell Lands. This sound, which in fact did not exist, was named in honour of HAYES. In his own expedition in 1860–61, HAYES again visited the Grinnell Land coast and also Cape Isabella and Gale Point to the south.

The Polaris expedition of 1871--1873, has made important additions to a knowledge of the northern part of the Grinnell Land east coast, but still more important are those of the English expedition of 1875—76 under the command of NARES, which visited many points from Cape Sabine northwards to Floeberg Beach on the north coast, the winter quarters of the "Alert" and further to Cape Alfred Ernest. This also was the first expedition which brought home a considerable material of botanical collections and observations, especially from the neighbourhood of Lady Franklin Bay, where the "Discovery" wintered. Here also, the United States' expedition, under the command of GREELY worked in 1881—83, and made very considerable additions to the knowledge of the geography and natural conditions of northern Grinnell Land. PEARY, who wintered at Cape Hawks 1898—99, has made some corrections in the map of the adjacent regions and has also gone overland to the west coast. Finally the Hayes Sound region and the south and west coasts have been examined by the SVERDRUP expedition in 1898—1900.

The different parts of the land have been differently named by their explorers, the northernmost portion is called Grant Land, the (at the time not visited) part between Greely Fjord and Cape Alfred Ernest is called Garfield Coast by GREELY; south of that fjord, and down to the hypothetical Hayes Sound, we have Arthur Land; Schley Land is an equally hypothetical island in that sound; the south-eastern coast is called North Lincoln; and lastly, the western coast is called King Oscar Land by SVERDRUP. However it is shown, by the sledging work of PEARY (1898—99) and of the SVERDRUP expedition, that the whole forms one great island, for which I now, following the Geographical Board of Canada (cf. Geogr. Journ. 1904, p. 230), deem it best to adopt the oldest name, Ellesmereland.

Roughly it may be estimated at 60,000 square miles, but almost only the coast can be said to be known, even though some overland trips are also made. The most northern point, Cape Columbia, lies in 83° 8′ N., the southernmost, Cape Tennyson, in 76° 8′. The northern part is the broadest, stretching from Cape Union 61° W., to Lands Lokk 92½ ° W. The outline of the land is very irregular, deep fjords intersecting the coasts except the northern one. Most parts of the land are high and broken, and the mountains rise to not inconsiderable heights. Only along the western coast wide stretches of low ground are to be found, but the architecture of the mountains is rather different in different parts of the land, according to the variations in the geological nature of the rocks. For information concerning the geology of the southern and western parts, I must refer to the preliminary report on the geology of the expedition by my late friend Mr. P. Schei. An account of the geological features of the northern region is given in the Narrative of Nares (App. 15, Geology) by De Rance and Feilden.

The Hayes Sound region is built principally of archaean rocks, which as far as is known, continue along the coast southward, and as far into Jones Sound as to the west side of the Harbour Fjord. This is by far the richest ground, both in number of species and denseness of vegetation. Out of the 109 species found in the regions I have examined, 22 only are found in the archaean territory, whereas 5 only are found outside it. The Cambrian and Silurian deposits are the poorest of all, therefore the flora of most parts of the coast line to the west along Jones Sound is very poor in species, and shows a stunted vegetation. The same seems also to be the case in the Bache Peninsula and along the Grinnell Land east coast, which is formed of the same strata. The Silurian limestones especially give an extremely poor soil.

Somewhat better conditions for the vegetation, prevail in the southwestern part of the land, where younger deposits, devonian and carbonian, form the ground. To these also, partly at least, is due the richer flora of the interior of Lady Franklin Bay and at Lake Hazen. The vegetation on the mesozoic and tertiary beds on the western coast, is too little known for any opinion to be formed about the conditions it affords for the plants. Considerable parts of the interior are covered with ice and nevés, but no continuous inland ice exists. The loose deposits are either formed by disintegration of the rock in situ, and at most have tumbled down in heaps at the foot of the mountains, or else they have been formed on the bottom of the sea and have afterwards become uplifted. Such is the origin of all the low land along the coast, as

also the present vallies represent former fjord bottoms. No deposits worth mentioning were found, which were due to a former glaciation of greater extent, only in the immediate vicinity of present glaciers, there might be a small area which appeared to have been once ice-covered. Doubtless the small extent of glaciation at the present time, stands in connection with the very small amount of precipitation, concerning which I have given some notes in my Zusam. Meteor. in SVERDRUP, Neues Land.

The knowledge we possess about the flora and vegetation of the land, comprises, almost without exception, only the coasts, the inland trips generally having been made at a season, when no considerable collections could be made; and of the coasts even, only some portion may be said to be comparatively well known from a botanical point of view. The description given by GREELY of the vegetation in the Lake Hazen Valley implies, that there would probably be an interesting field for botanists, and, as there are also in other parts of the land doubtless large tracts affording favorable conditions for vegetation, inland trips during the summer would certainly well repay the pains with a rich botanical harvest. But our expedition was not equipped for such travelling.

The first contribution to the Ellesmereland flora is to be found in OSBORN's Stray Leaves, p. 244, where "poppies, saxifrage and moss" are mentioned as found on Cone Island, and where it is also said about the vegetation in that region, that it is much better developed than in Cornwallis Island to the south-west (on limestone ground). Specimens were brought on board, but I do not know if they were preserved.

The next small contribution is given by DURAND (Enum. Pl. Smith S.), where however, only 9 species from Cape Isabella and the adjacent Gale Point are mentioned as collected there by HAYES in 1861. HAYES himself only casually speaks of mosses, poppies, etc. from that locality, but in the narrative of his spring journey to Grinnell Land, he has mentioned *Saxifraga oppositifolia*, *Salix arctica*, and *Festuca ovina* from Cape Frazer (Op. Pol. Sea, p. 341).

The botanical results of the NARES-expedition which, as already mentioned were considerably greater, were published in appendices to the Narrative of the expedition in 1878, and in 1880 the botanist of the expedition Mr. HART has himself, in the Journal of the Botany, published an account of the botanical observations made by himself, Captain FEILDEN, Dr. MOSS and other members of the expedition. The contributions to our knowledge of the flora of the land laid down in those trea-

tises, are of a very great interest. There are, however, especially perhaps in the lastmentioned, not a few errors in the identification of species, and doubtless, specimens from Danish Greenland have become mixed with those of Ellesmereland, so as to give rise to several false statements of distribution. As I have had an opportunity of seeing the specimens of Hart, Feilden, and others, now kept in the herbaria of the Natural History Museum at London and at Kew Gardens, I have been able to correct several errors, as will appear in the treatment of the different species.

I very much regret not to have had any opportunity of inspecting the American collections. The most important of these is that of the Greely-expedition, made at the greatest part at Fort Conger in Lady Franklin Bay and in its vicinity. The main collection of the expedition had necessarily to be left behind when the retreat southwards began, and only Greely's "private collection" was transported to Smith Sound and thence home. Where the specimens have come to anchor I do not know, but the vascular plants are treated by Greely himself in the Appendix 130, Botany of the Report of the expedition; Asa Gray, S. Watson and G. Vasey, however, have assisted him in the identification of the species. Moreover there is a list of mosses and lichens by Rev. E. Lehnert and A. W. Greely and some lists of specimens in the collections. In his "Three Years of Arctic Service" Greely also gives the list of plants with a few additional notes.

Later contributions are to be found in Wetherill, List 1894, where the collections of the Peary Auxiliary Expedition of that year are treated, containing a few plants from Cape Faraday and a greater number from "north side of Jones Sound", viz., the neighbourhood of Smith and Cone Islands at the mouth of Fram Fjord, where a landing was made. Further I have named a few species new to Ellesmereland or, at least to the southern parts of it in my Prel. Rep. and in the botanical appendix to Sverdrup's Neues Land.[1]

Lastly Mr. Th. Holm of Brookland, D. C. has kindly sent me a list of plants collected by the American geologist Dr. Stein in the Smith Sound region. A few of them taken in Ellesmereland, will be mentioned in the following, the rest will be inserted in another paper about the flora of North-Western Greenland which I am to prepare soon.

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[1] As I have only seen proof-sheets of the English edition, of which the editor has not thought it necessary to send me any copy, I must always refer to the German one, the editor of which, Mr. F. A. Brockhaus, has kindly sent me copies.

Thus I think Ellesmereland may be looked upon as being the best explored of all the Arctic American Islands; but yet large parts of it form, from a botanical point of view at least, an entire terra incognita, and as I could sometimes find a new Ellesmereland citizen in places which I was inclined to regard as well explored, and as several species are only found in an isolated locality, I think many further additions will be made when another botanist comes to visit the land. The best known districts now are the neighbourhood of Discovery Harbour in Lady Franklin Bay, the outer part of Hayes Sound (Buchanan Strait), the environs of Fram Harbour, and in the south coast Fram Fjord, Harbour Fjord and Goose Fjord. The east coast south of Cape Isabella, the eastern part of the south coast and the greater parts of the western and northern coasts are almost totally unknown.

A list of all points whence collections or notes of species exist, is inserted on p. 16, where also the approximate position of each locality is given.

The reader will perhaps be astonished not to find any notes about the height above the sea-level to which the different species attain. At first I began making notes about it, but soon I came to the conclusion that it was of no interest. The height is of very little consequence, perhaps of none at all, in these regions. Indeed the higher plants were most abundant in the low-lying grounds or, rather in the slopes at the foot of the mountains, but their diminishing number and more stunted growth, such as could be observed in many places when one went up the mountain sides, was not due to the higher level, but to the decreasing depth of loose soil and often to the lesser water-supply. Where there was enough soil, and where some water trickled down even during the summer, after the melting of the main mass of winter-snow was over, there also vegetation would be found, which was not inferior to that of lower levels. Indeed, the richest vegetation, both as to density, development of the plants and numbers of species, was always found in slopes some hundred feet above the sea-level. Even at heights of a thousand feet or more, there would be a flourishing vegetation, if only the other conditions were favorable. In few places have I seen such tall grasses as in the plateau of the peninsula between the Goose Fjord and the Walrus Fjord, at a height of more than 1000 feet, and often, when after climbing a steep slope of some hundred or a thousand feet which was very bare except for mosses and lichens, one arrived at a ledge or plateau, one would find a vegetation which was not any poorer than that near the sea. In fact two circumstances are decisive, the

water supply during the time of vegetation, and the exposure. Southward slopes with water enough, always held the best developed vegetation.

The system followed in the special treatment of the Ellesmereland plants is that of ENGLER & PRANTL, Planzenfam. The order of the families is reversed, because I had to begin with the vascular plants, the lower cryptogamae will follow in other papers. In many cases, rather wide limits have been drawn for the species; it may be, that sometimes they are even too wide, but I have thought it better to use a collective species name than to separate as species forms which I could not with certainty look upon as constant. Indeed I do not doubt that in several genera there are such collective species, that will some time or other be separated into several species of a narrower limit. But for that a closer study is necessary than that which I could bestow upon them when working in the field, and to make such a separation in a number of herbarium specimens I do not think is advisable. In many cases, I think experimental culture such as is possible only in an arctic biological station will be required before a definite treatment is possible.

As for the synonymic, I have always tried to go back to the oldest work in which the plant in question is described. Besides I have quoted the principal synoptic floristic works about different parts of the Arctic Regions, papers including the new additions to a district, or treating the distinction or synonymic of the species in question. Under "occurrence" are mentioned all places where the plant is collected (with the numbers from my catalogue of collections added, which will be used in the labels of the specimens) or noted. For very common species no special localities are recorded. As for the collections of others, "!" signifies that I have seen specimens.

The Ellesmereland flora as it is known at present, includes 115 vascular plants; 10 species more I have taken up in the list as doubtful even though I should have been most inclined, for reasons stated in each case, to exclude them altogether; however I have not thought myself entitled to do so, as I have had no opportunity of proving that a mistake has been made. In many other cases, I have seen the specimens which have given rise to a wrong statement and have put the plant in its right place.

The 115 species belong to the following families represented by the numbers of species added:

Compositae	7	Cruciferae	13
Campanulaceae	1	Papaveraceae	1
Scrophulariaceae	4	Ranunculaceae	6
Plumbaginaceae	1	Caryophyllaceae	10
Primulaceae	1	Polygonaceae	2
Diapensiaceae	1	Salicaceae	1
Ericaceae	2	Juncaceae	3
Pyrolaceae	1	Cyperaceae	15
Onagraceae	1	Gramineae	20
Empetraceae	1	Lycopodiaceae	1
Rosaceae	5	Equisetaceae	2
Saxifragaceae	12	Polypodiaceae	4

The genera represented by the largest number of species are *Carex* and *Saxifraga* (11), *Ranunculus* (6), *Draba* and *Poa* (5), *Pedicularis, Potentilla* and *Glyceria* (4).

Only two genera, *Androsace* and *Chrysosplenium* are not present in Greenland, and only two more species are totally absent from all parts of that country, viz. *Alsine Rossii* and *Carex membranopacta* (and besides the new *Taraxacum pumilum* and *Poa evagans*). This ought of course to bear out the opinion of Hooker (App. Nares) that the flora of Ellesmereland is entirely Greenlandic; even after the number of species has been brought up from the 69 he reckoned with to 115, still the resemblance to the Greenland flora might seem to be almost unaltered. Even at the first glance it must seem astounding that, if a limit between a European flora in Greenland and an American one to the west can be drawn at all, the line should not follow the border of Greenland but should make such a deflection as to include Ellesmereland and to exclude it from the other Arctic Islands. Indeed it would seem a priori more probable, that its affinity with the flora of the Arctic American Archipelago was at least equally prominent. Now it must be kept in mind, that the archipelago includes a considerable area and stretches as far south as about 62° (Baffin Land) in the eastern part, and about 68° (Victoria Land) in the western part. When the species belonging only to those southern localities are excluded, as they must of course be for the sake of a comparison which shall not be quite unnatural, it will be found that the flora lists are nearly identical. I cannot at present give any such list or any number of species for the Arctic Islands as a revision of their flora must first be made, but this much I know about it, that I can assert that the Ellesmereland flora is very

nearly — and nearest — allied to that of those other islands (except the southern).

But still the opinion of Hooker holds true if it is only altered in so far as the comparison is not made with the flora of Greenland as a whole, but with that of the northern parts and especially of the region which lies nearest to Ellesmereland — north-western Greenland. It would lead too far here to go into the question of the history of the Greenland flora which has been made the subject of quite a literature, it may suffice to accentuate the fact, that the Greenland flora is no unity, there are great differences in the communities of species belonging to the different parts, which clearly show that an immigration from different quarters must have taken place in post-glacial times, and the region north of Melville Bay especially, has a number of american immigrants large enough to show that here the influence of the near neighbourhood to the american flora has been considerable, i. e. the invasion of american species — from Ellesmereland — has put a conspicuous mark upon the flora of that region.

But before this fact can be clearly shown, it is necessary to make a division of the Ellesmereland flora and thereby show its truly american character, and first of all, the distribution of the species within the area itself must be examined. Of the 115 Ellesmereland species 58 (50 %) are spread all over the land (the little-explored western coast is here left out of consideration), and of these again 50 are circumpolar species spread in most parts of the Arctic Regions or besides also to the south. Of the 8 others, most are western species with their principal area in America—Greenland; 13 species are found only in the southern coast, 13 more there and in the Hayes Sound region of the east coast; 10 in the latter region alone, 3 there and to the north, 6 are found in the northern parts alone. To the first group, the species spread in all parts of the land, probably also the now first distinguished *Draba subcapitata* belongs. Of special interest is a group of 11 species found both in the northern as well in the southern, especially the south-western part of the land, but not in the Hayes Sound territory. Some of them are rather common in the regions where they are found, and their absence from the middle part of the eastern coast, where the natural conditions would doubtless be quite favorable to them, can hardly be accounted for in any other way than that they have immigrated from the south-west, where they are spread (except for the new species *Taraxacum pumilum?*), and that they have in their wandering along the coast not yet reached Hayes Sound. The conditions for spreading

overland to that district from the west coast are very unfavorable. Among these last-mentioned 11 species, there are 3 not found in Greenland, and the others there are generally restricted to the northern parts.

Now I think that a comparison with the flora of north-western Greenland may be undertaken, in order to see how far the affinity goes, and if it holds true that this flora as well as that of Ellesmereland may be called entirely Greenlandic and not American. Indeed it would have been very desirable to have at hand, for this comparison, a revised list of the flora of the north-western part of Greenland, but as I have not yet had the time to make up such a list, as I intend to do, the comparing must be done without it. NATHORST, N. W. Grönl, gives a list of 88 species, but by the additions since made by MEEHAN, WETHERILL, and myself, the number of species has been brought up to about the same as that in Ellesmereland.

In the Ellesmereland flora there are 72 species (63 %) which are circumpolar plants spread all over the Arctic Regions and partly outside them also. Nearly every one of them is found in north-western Greenland also, and consequently the percentage of such species may be taken to be the same there as on the American side of the boundary formed by Smith Sound, Kane Basin, Kennedy and Robson Channels. As it is hardly possible to say anything about the former home of these plants and their ways of migration, most of them must be left entirely out of consideration. Five more species, *Campanula uniflora, Potentilla pulchella, Saxifraga aizoides, Carex glareosa, C. nardina,* may be added to these as circumpolar; even if they have not yet been recorded from Arctic Siberia (or from Asia at all), they are probably overlooked there. *Pedicularis lanata,* absent from East Greenland, is one of the species in the last group of eleven species (p. 11) and is spread in Western Greenland from the north to 67°; doubtless it has reached there by way of Ellesmereland. *Saxifraga Hirculus* in the south coast of Ellesmereland, must be an immigrant from the western islands, in Greenland where it is only found in the northern part of the east coast, it probably has immigrated from the south-east. *Arenaria ciliata, Carex ustulata,* and *C. ursina* are of very sporadic occurrence in the Arctic Regions, but the two latter have most probably come to Ellesmereland from the American side, none of them are found in north-western Greenland. The occurrence of *Carex pedata* and *Agropyrum violaceum* is rather curious, as they are found nowhere in the arctic islands and in Greenland only further south.

There are in North-western Greenland at least four species of a

decidedly american origin, all found in Ellesmereland but not spread to the south in Greenland; these are *Pedicularis capitata, P. arctica, Ranunculus Sabinei, Taraxacum hyparcticum* to which may be added: *Potentilla Vahliana* (south to 69°), *Arabis arenicola* (all over West Greenland), *Hesperis Pallasii* (spread from America through Arctic Asia to Novaja Semlja, but absent in East Greenland and Spitsbergen), *Aspidium fragrans* (it has probably come to its South Greenland area by some other way than from Ellesmereland). Species that have immigrated by way of Ellesmereland but have spread also to North-eastern Greenland are: *Potentilla rubricaulis, Saxifraga tricuspidata* (in West Greenland south to 64°), *Lesquerella arctica* (west coast to 69°), *Erigeron compositus* and *Dryas integrifolia* (all over the west coast), *Pleuropogon Sabinei* (although occurring even in Arctic Asia, Novaja Semlja and Franz Joseph Land). *Poa abbreviata* is a common arctic American plant, spread in Greenland in both coasts south to 70°; although it is found in Spitsbergen, Franz Joseph Land and Novaja Semlja, it must be assumed to be an immigrant from the west; the same is the case with *Aira caespitosa* var. *arctica*, although as yet only known from the northern east coast. *Kobresia bipartita* and *Dupontia Fisheri* are not yet found in North-western Greenland, but as the former, which is absent from the whole of Arctic Asia and Europe, is found only north of 64° in the west, and of 71° in the east coast of Greenland, and the latter only within a limited area of Danish Greenland, they must be regarded as western species. *Aira flexuosa* is not as yet known from other arctic localities in America and might possibly be an eastern immigrant, but as it is found in Labrador it has most probably come that way to Greenland, even if it may have come to Ellesmereland from the south-east, that is to say from Greenland.

The Ellesmereland species not found in Greenland and of a decidedly american origin are: *Androsace septentrionalis, Chrysosplenium alternifolium* (representing genera lacking in Greenland), *Alsine Rossii, Carex membranopacta.* Among the 72 circumpolar species there are four, the Greenland distribution of which is such, as to make their western immigration thither probable, viz.: *Saxifraga flagellaris, Braya purpurascens, Eutrema Edwardsi, Ranunculus affinis.* Finally, the distribution of the following species is too little known as yet for any opinion to be formed about their original home and ways of migration: *Taraxacum phymatocarpum, T. pumilum, Saxifraga *exaratoides, Draba subcapitata, Sagina intermedia, Glyceria Vahliana, G. angustata, Poa evagans.*

The result of the preceding, may be summarized thus: There are 29 species (25 %) in the Ellesmereland flora, which can hardly have come but from the west, consequently there is a strongly pronounced american feature in the flora of the island. But as most of these plants are also found in the northern part of the Greenland west-coast, there also the american immigration forms a prevalent feature. And also in the flora of the north-eastern Greenland coast, the american species play a prominent part.

The 29 species are the following (occurrence in West Greenland marked with * and as well in North-East Greenland with **):

* Taraxacum hyparcticum.	* Eutrema Edwardsi.
** Erigeron compositus.	** Lesquerella arctica.
* Pedicularis capitata.	** Ranunculus affinis.
* — lanata.	* — Sabinei.
* — arctica.	* Arenaria ciliata.
Androsace septentrionalis.	Alsine Rossii.
** Dryas integrifolia.	Carex membranopacta.
** Potentilla rubricaulis.	* — ustulata.
* — Vahliana.	* — ursina.
Chrysosplenium alternifolium.	** Kobresia bipartita.
Saxifraga Hirculus.	** Poa abbreviata.
** — flagellaris.	* Dupontia Fisheri.
** — tricuspidata.	** Pleuropogon Sabinei.
* Hesperis Pallasii.	* Aspidium fragrans.
** Braya purpurascens.	

With this, the short sketch of the affinity of the Ellesmereland flora must end for the present, I hope to give it a more detailed treatment in future, but I have felt that such a review would be in its right place here, and therefore I have compiled it in such a way as the materials at hand would allow.

Finally I have to make acknowledgements to all those who have, in some way or another, helped to forward my work. Some of my comrades in the expedition, contributed materially to the collections and observations; among whom I have especially to mention my dear friend, the late Mr. Schei, geologist of the expedition, whose premature death has been a heavy loss for the working out of the results of the expedition. Mr. Schei made many contributions to the botanical investigation of Ellesmereland and especially, as will appear in another paper, to that of adjacent islands where I have not myself been.

I owe a great debt of gratitude to the Keeper of the herbarium at the Royal Gardens at Kew, Mr. Hemsley, and to the first Assistant Dr. Stapf, as also to the Assistants at the Botanical Department of the Natural History Museum of London, Messrs Britten, Baker and Rendle, who all, with the greatest good will, facilitated my work when I was studying the important collections from the English arctic expeditions with their treasure of original specimens of the species established by Rob. Brown, Richardson, W. J. Hooker, and others.

To the Secretary of the Linnaean Society, Mr. B. Daydon Jackson I tender my sincerest thank for his kindness in letting me examine some species of importance for my work in the herbaria of Linnaeus and J. E. Smith, and also some small, but interesting, arctic collections belonging to the Society.

Further I am greatly indebted to Professor Warming, who put at my disposal the rich arctic herbarium of the Museum of the University at Copenhagen, and to my old friend Inspector Ostenfeld, the author of the Flora Arctica, who was always willing to let me profit by his comprehensive knowledge of literature concerning arctic plants, during the long time in which I was occupied comparing my material with the Copenhagen collections.

To the Director of the Botanical Department of the State Museum at Stockholm, Professor Lindman, I am indebted for the loan of some inportant plants from that Museum, and my old and honoured friend, Professor Nordstedt of Lund has now, as in so many previous instances, helped me in procuring literature and in other ways. I have to thank my friend, Professor Murbeck of Lund, not only for some valuable hints for this work, but also for all that I have learnt from him in systematic botany in bygone years. To my friend, Professor Wille of Kristiania, I am indebted on many grounds, and now as well for the trouble he has, as Editor of the "Report", taken in getting this treatise printed. Finally I have to acknowledge my debt of gratitude to Mrs. E. Fearenside, who has kindly revised the English, and to Miss L. Bergklint, who has made the drawings and photographs for the present paper, and to Mr. Robert Larsson, who has helped me to read the proofs.

Lund, Sweden. March 1906.

List of Ellesmereland localities,

with their approximate geographical position.

North coast:	Lat. N.	Long W.
Cape Alexandra	83° 3′	77°
Ward Hunt Island	83° 5′	75°
James Ross Bay	82°44′	64°30′
Cape Joseph Henry	82°48′	63°30′
Feilden Peninsula	82°42′—48′	63°30′
Egerton Valley	82°40′	63°
Dumbbell Bay	82°28′	62°
Floeberg Beach	82°27′	61°
Grinnell Land:		
Shift Rudder Bay	81°50′	63°30′
Cartmel Point	81°45′	63°
St. Patrick's Bay	81°45′	64°
Lady Franklin Bay		
Water Course Bay	81°42′	64°30′
Bellot Island	81°40′	65°
Alexandra Lake	81°44′	65°30′
Discovery Harbour	81°43′	65°30′
Muskox Bay	81°40′	66°30′
Lake Hazen	81°33′—58′	68°—73°
Radmore Harbour	80°22′	70°30′
Cape Collinson	80° 5′	71°
Cape Frazer	79°45′	71°30′
Dobbin Bay	79°45′	73°
Princess Marie Bay	79°20′	74°—78°
Norman Lockyer Island (Walrus Island)	79°23′	74°30′
Franklin Pearce Bay	79°28′	75°
Victoria Head	79°16′	73°30′

Hayes Sound Region:	Lat. N.	Long. W.
Interior of Hayes Sound		
Mouth of Flagler Fjord	79° 4′	76°30′
"Fort Juliane"	79° 3′	77°
Beitstad Fjord	79° 2′	77°30′—79°
Weyprecht Islands	79°	76°30′
Alexandra Fjord	78°48′—57′	75°50′—76°50′
Skräling Island	78°53′	75°50′
Twin Glacier Valley	78°45′—50′	76°
Buchanan Strait (outer part of Hayes Sound)	78°50′	75°—76°
Cape Viele	78°53′	75°50′
Eskimopolis (Deserted Village)	78°52′	75°30′
Lastraea Valley	78°52′	75°30′
Cape Rutherford	78°49′	75°
Fram Harbour	78°45′	75°
Cocked Hat Island	78°48′	74°50′
Bedford Pim Island	78°42′—47′	74°25′—50′
Cape Sabine	78°44′	74°25′
Brevoort Island	78°43′	74°20′

Southern East Coast:

Cape Isabella	78°20′	75°
Gale Point	78°13′	76°
Cape Faraday	77°35′	78°

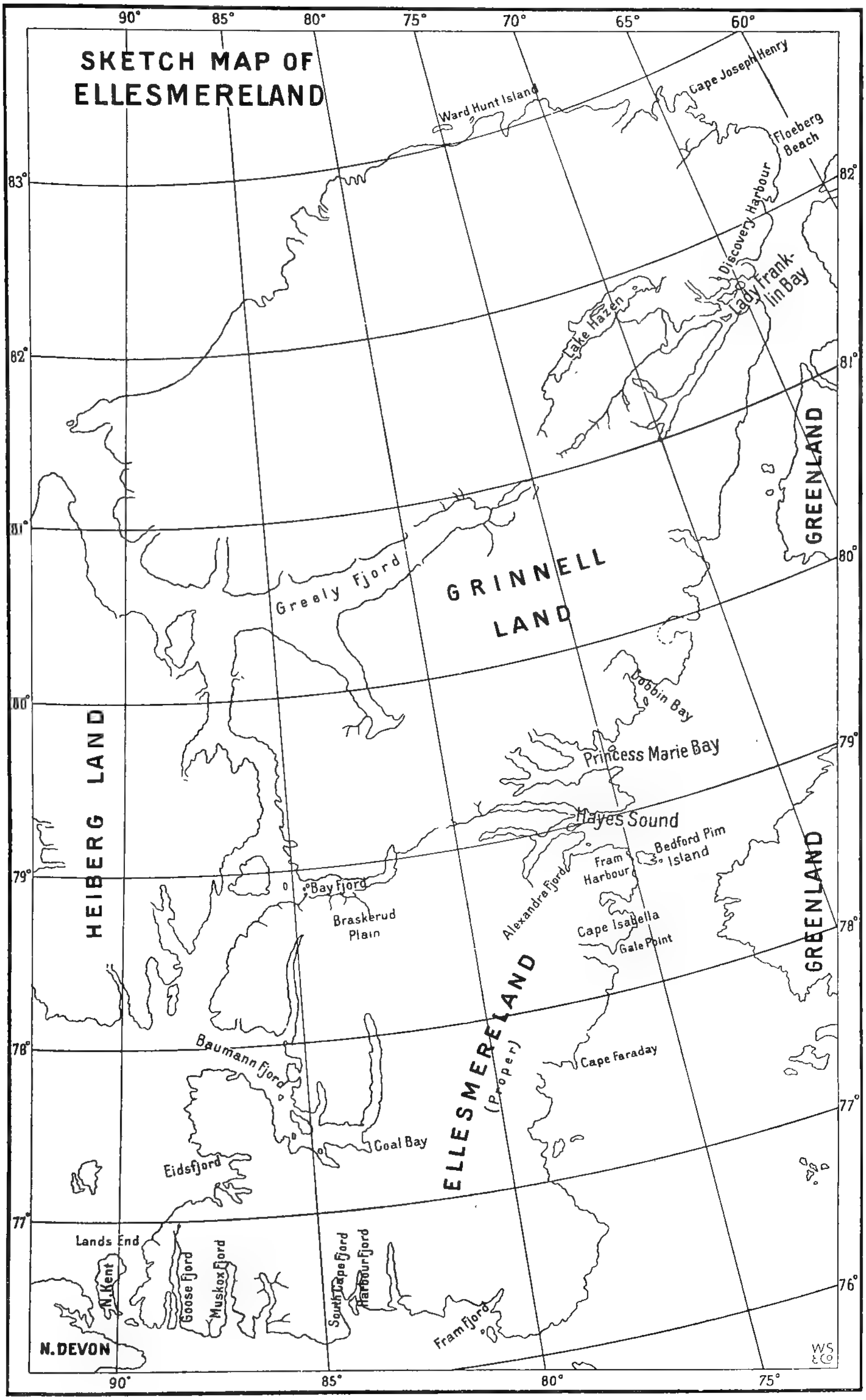
South Coast:

Fram Fjord	76°20′—25′	81°—81°30′
Cone Island	76°12′	81°30′
Harbour Fjord	76°25′—40′	84°20′—45′
Big Valley	76°28′	84°20′
Seagull Rock	76°28′	84°30′
Spade Point	76°28′	84°32′
Anchorage of the "Fram"	76°30′	84°30′
Lake Valley	76°30′	84°25′
Barren Vallies	76°37′	84°25′
Sir Inglis Peak	76°25′—32′	84°40′
Western Sound	76°30′	84°45′

	Lat. N.	Long. W.
South Cape Fjord	76°25′—37′	85°
South Cape	76°21′	84°50′
Muskox Fjord	76°20′—38′	87°40′
Goose Fjord	76°23′—51′	88°40′
Castle Rock	76°37′	88°40′
Valley inside the Castle	76°39′	88°40′
4th quarters	76°40′	88°40′
Wolf Valley	76°40′	88°40′
Yellow Hill	76°42′	88°40′
Midday Knoll	76°44′	88°45′
Bottom Valley	76°53′	88°40′
Gallows Point	76°50′	88°40′
3rd quarters	76°49′	88°40′
Ptarmigan Gorge	76°48′	88°40′
Low land over to the bottom of Walrus Fjord	76°35′	88°45′
Falcon Cliff	76°29′	88°40′
Gull Cove	76°23′	88°45′
Walrus Fjord	76°23′—37′	88°50′

West Coast:

Hell Gate	76°23′—50′	89°20′
Reindeer Cove	76°42′	89°15′
Lands End	76°52′	89°30′
Nordstrand	76°58′	89°
Eidsfjord	77°20′	87°
Baumann Fjord	77°20′—78°	83°—88°
Coal Bay	77°20′	83°30′
Braskerud Plain	78°30′	82°30′
Bay Fjord	79°	82°—85°


SKETCH MAP OF
ELLESMERELAND
Ward Hunt Island
Cape Joseph Henry
Floeberg Beach
Discovery Harbour
Lady Franklin Bay
Lake Hazen
GRINNELL
LAND
Greely Fjord
GREENLAND
Dobbin Bay
Princess Marie Bay
Hayes Sound
Bedford Pim Island
Fram Harbour
Alexandra Fjord
Cape Isabella
Gale Point
HEIBERG LAND
Bay Fjord
Braskerud Plain
Baumann Fjord
Cape Faraday
ELLESMERELAND
(Proper)
Goal Bay
Eidsfjord
Lands End
N. Kent
Goose Fjord
Muskox Fjord
South Cape Fjord
Harbour Fjord
Fram Fjord
N. DEVON

The species of vascular plants hitherto found in Ellesmereland.

Compositae.

Taraxacum hyparcticum, DAHLST.

T. hyparcticum, DAHLSTEDT, Stud. arkt. Tarax., 1905; *T. phymatocarpum*, SIMMONS, Prel. Rep. et Bot. Arb., ex p., non VAHL; *T. Dens-Leonis*, HART, Bot. Br. Pol. Exp., ex p.; *T. officinale* var. *pallida*, GREELY, Rep., ex p.; *Leontodon palustre*, HOOKER, Fl. Bor. Amer. (?).

Fig. DAHLSTEDT, l. c.; Tab. nostra 1, fig. 1.

At first I thought all my Taraxaca to be referable to *T. phymatocarpum*, VAHL, which therefore was quoted in my Prel. Rep., but afterwards I found that I had two species from Ellesmereland besides one other from N. W. Greenland. In the mean time, however, Mr. H. DAHLSTEDT, Assistant at the State Museum in Stockholm, the well-known *Hieracium*-specialist, had begun a comparative study of the arctic forms of *Taraxacum*, and as he wished to see my collection, it was submitted to his inspection, with the result, that he arrived at the conclusion, that most part of the collection from Ellesmereland was to be referred to an allied new species, *T. hyparcticum*, whereas the true *T. phymatocarpum* was only represented by a single individual. Besides he found still another new species. The two latter I had thought to belong to the real *T. phymatocarpum*. As DAHLSTEDT, l. c., has given a detailed diagnosis of the different species, it may be enough here to refer to his paper. The above list of synonyms could perhaps be increased by some more references, but, as the statements in literature are always referable to several species at a time, I have refrained from doing so.

T. hyparcticum is mostly found in rock-ledges and slopes with a rich, densely vegetation-clad soil, sometimes also in the clay-plains of valley bottoms. It begins to show its flowers at the end of June or beginning of July, and soon is to be found with fruit in abundance.

Occurrence. Grinnell Land, Discovery Harbour (specimens of HART and FEILDEN in the Nat. Hist. Museum !). East Coast: Hayes Sound, mouth of Flagler Fjord, Beitstad Fjord, Skräling Island in Alexandra

Fjord; Fram Harbour (1086); Cocked Hat Island; Bedford Pim Island, south side (1188). Southern coast: Western valley in Fram Fjord (1627); Harbour Fjord, in several places (2557, 2582); more scarce and stunted to the westward in the lime and sandstone regions: Muskox Fjord (2118, 2136); Goose Fjord, in several localities (3582, 3645, 3955). Western coast: Coal Bay in Baumann Fjord, Bay Fjord (leg. BAY, 479).

Distribution: Northwestern Greenland (Foulke Fjord), probably over the western islands of the Arctic American Archipelago and the arctic coast of the continent. I have seen specimens that seemed to belong to this species, from Duckett Cove (PARRY, 2nd voyage), PARRY, 3rd voyage (Port Barrow?), and some collected by RAE on the coast at the Coppermine River and at Cape Krusenstern.

Taraxacum phymatocarpum, J. VAHL.

T. phymatocarpum, VAHL, Fl. Dan., T. 2298, 1840; DAHLSTEDT, Stud. arkt. Tarax.; LANGE, Consp. Fl. Groenl., ex p.; KRUUSE, List E. Greenl., ex p.; non KJELLMAN, in Vegaexp.; nec ANDERSSON & HESSELMAN, Spetsb. kärlv.; nec alii; *T. officinale*, NATHORST, N. W. Grönl., ex p.

Fig. Fl. Dan., T. 2298; DAHLSTEDT, l. c.

This species seems to have a very narrow range, as it is found, outside of Greenland, only in Ellesmereland, all other statements being transferred by DAHLSTEDT to other species (cf. l. c., p. 8), especially *T. arcticum*, (TRAUTV.) DAHLST.

Among my Taraxaca, it was represented only by a single individual, collected together with a few specimens of the following species on a clayey slope at the interior part of the Goose Fjord, August 13th 1901, when the plants had just begun to flower.

Occurrence. South coast, at Ptarmigan Gorge in the Goose Fjord (4265)[1].

Distribution: Greenland, northern parts of both coasts; Ellesmereland.

Taraxacum pumilum, DAHLST.

T. pumilum, DAHLSTEDT, Stud. arkt. Tarax., 1905; *T. Dens-Leonis*, HART, Bot. Br. Pol. Exp., ex p.; *T. officinale* var. *pallida*, GREELY, Rep., ex p.

Fig. DAHLSTEDT, l. c.; Tab. nostra 1, fig. 2.

This very characteristic little plant I had taken to be the true *T. phymatocarpum*, principally as it had developed pollen, in contradistinction to the common Ellesmereland form. DAHLSTEDT, however, has shown it to be distinct from that also.

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[1] I have given it a number of its own and removed it from n. 3394 where it lay previously (not under 3392 as DAHLSTEDT, l. c., p. 24, erroneously writes).

Judging from available herbarium specimens it must be a very rare form, limited entirely to Ellesmereland or perhaps also spread to the south west. Indeed, I cannot affirm that other specimens than those mentioned by DAHLSTEDT, l. c., p. 27, belong to it, as the other specimens that I am inclined to refer to it, were in a rather bad state. Such was the case especially with the specimen of FEILDEN, mentioned below, which I take to belong here only because it had the characteristic leaves of *T. pumilum*. DAHLSTEDT, l. c., p. 28, thinks the stunted form of *T. Dens-Leonis*, that HART, l. c., p. 33, speaks of as frequent in Discovery Bay, to be this species, which is the more probable as GREELY, l. c., p. 14, says under *T. officinale* var. *pallida*: "There were two shades of colour, deep yellow, and yellowish white". The latter doubtless is *T. hyparcticum*, but the former accords best with *T. pumilum*.

All the species of the *phymatocarpum*-group must be presumed to be of a very late origin, because of their existence only within rather limited areas, mostly inside the line of former glaciation, but among the forms here in question *T. pumilum* may be taken to be the youngest, as its area seems to be even smaller than that of the others.

Occurrence. North Coast: Dumbbell Harbour, leg. FEILDEN (Nat. Hist. Museum herb.!). East Coast: Discovery Harbour, HART, GREELY (?) South Coast: Goose Fjord (3394, cf. note p. 21).

Distribution: Arctic American Archipelago: Ellesmereland, Melville Island (I must refer hither a specimen in the Nat. Hist. Mus., collected by SABINE). That *T. pumilum* should have come to Ellesmereland from the west is made probable by its appearence in the northern part of the land as well as in the south-western part, whereas it is doubtless lacking in the Hayes Sound region, where I could hardly have overlooked it, as the shape of its leaves is so different from that of the common form.

Arnica alpina, (L.) OLIN.

A. alpina, OLIN, Diss. Arn., 1799; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; LEDEBOUR, Fl. Ross.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; BRITTON & BROWN, Ill. Fl. (ex p.?); SIMMONS, Prel. Rep. et Bot. Arb.; *A. montana β alpina*, LINNÆUS, Sp. plant., 1753; *A. montana β angustifolia*, HOOKER, Fl. Bor. Amer., non DUBY: *A. angustifolia*, VAHL, Fl. Dan., T. 1524; *A. montana*, HART, Bot. Br. Pol. Exp.; GREELY, Rep.

Fig. Sv. Bot., T. 699; Fl. Dan., T. 1524.

The Ellesmereland plant is in accord with specimens from Greenland and Scandinavia, etc. As a rule, each individual had only one

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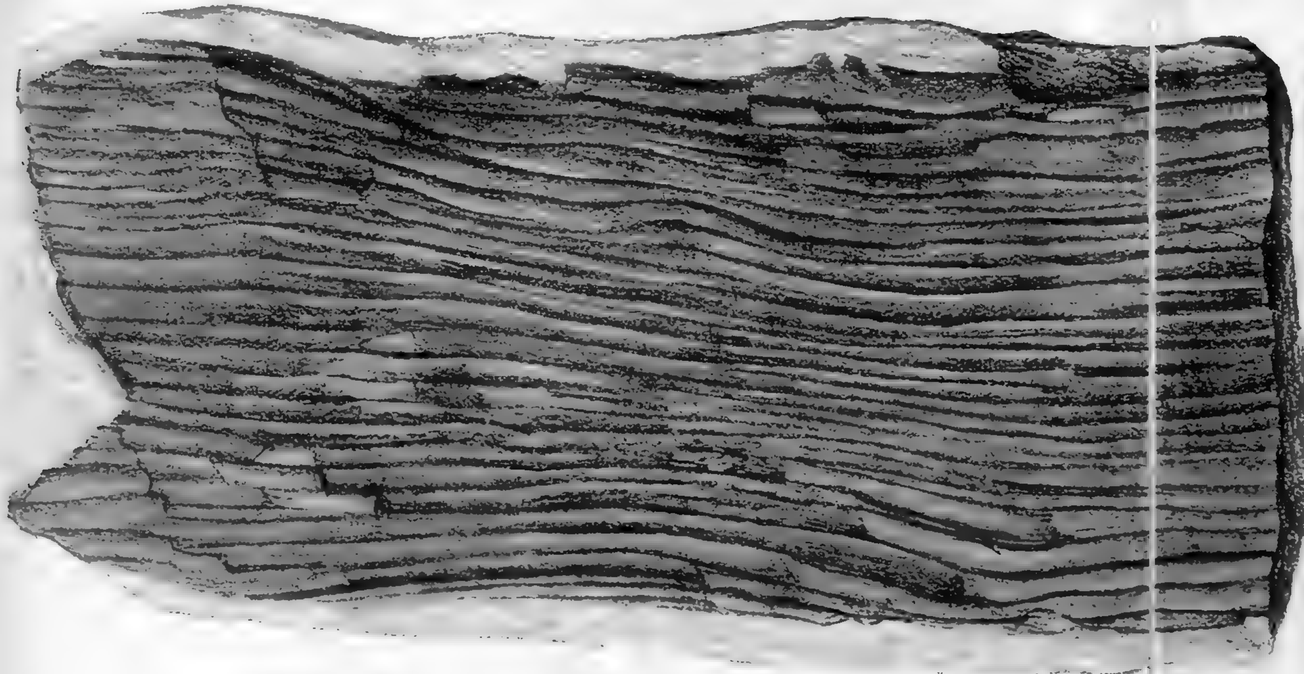
Th. Ekblom del

Ljustr. Gen. Stab. Lit. Anst. Stockh.



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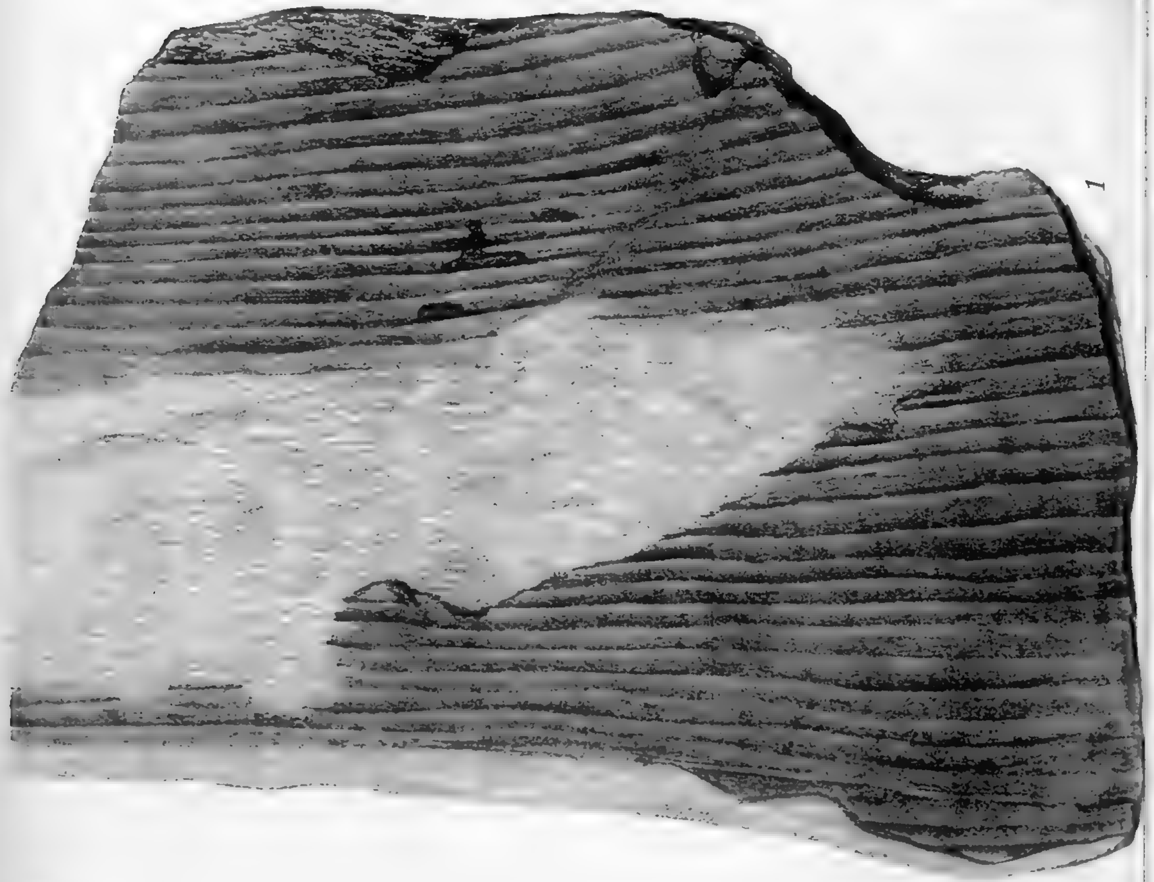

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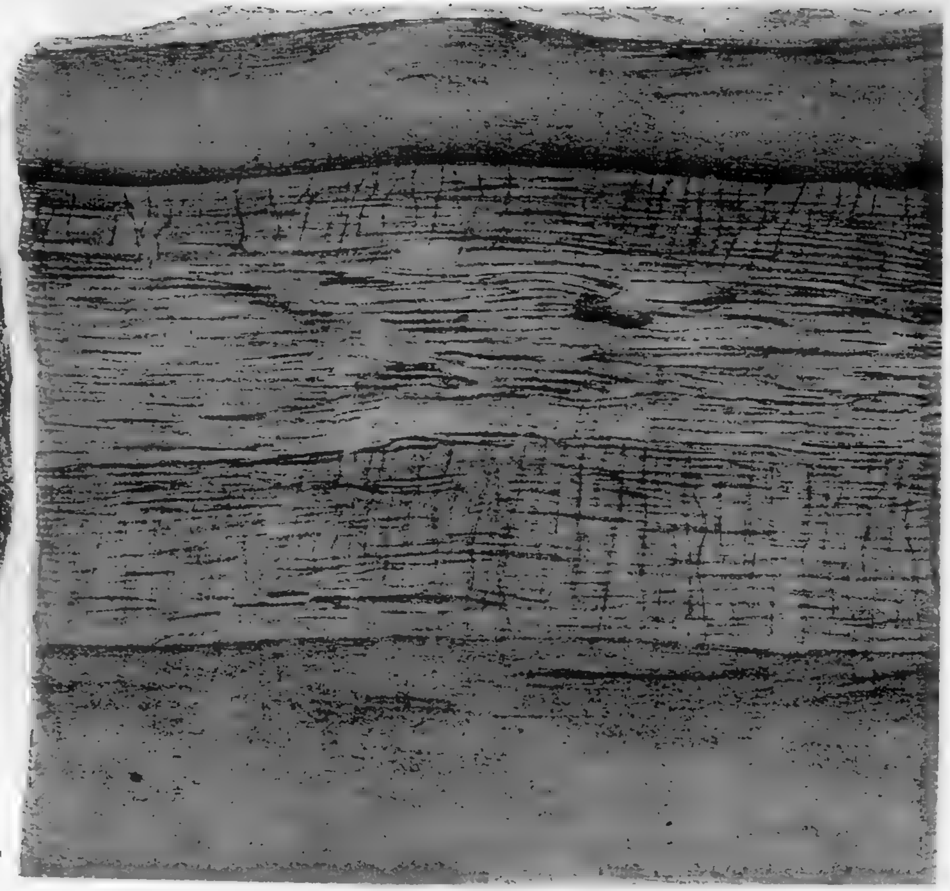

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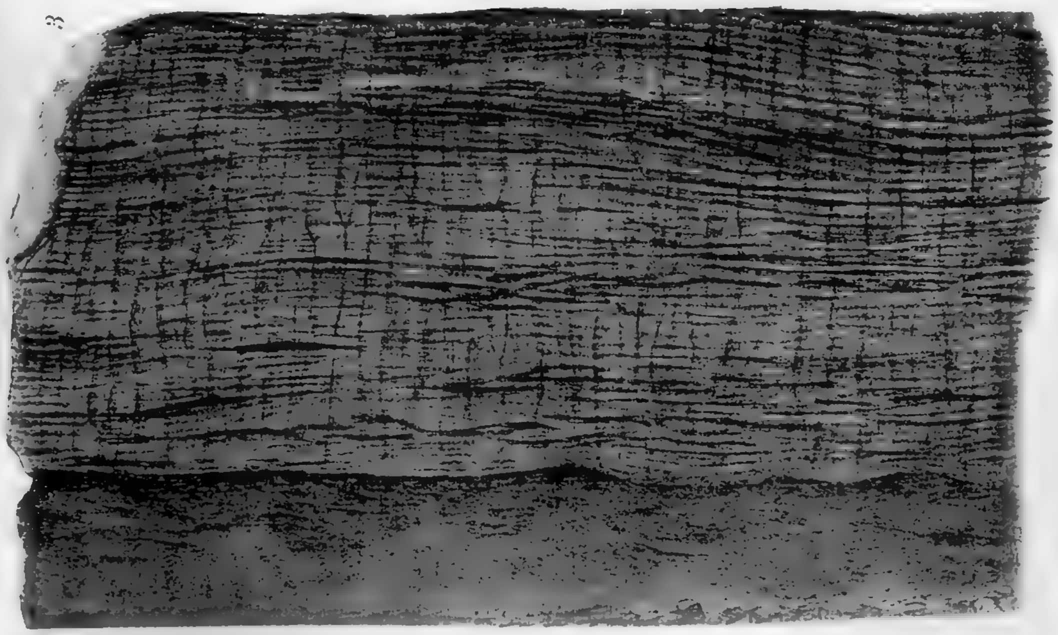

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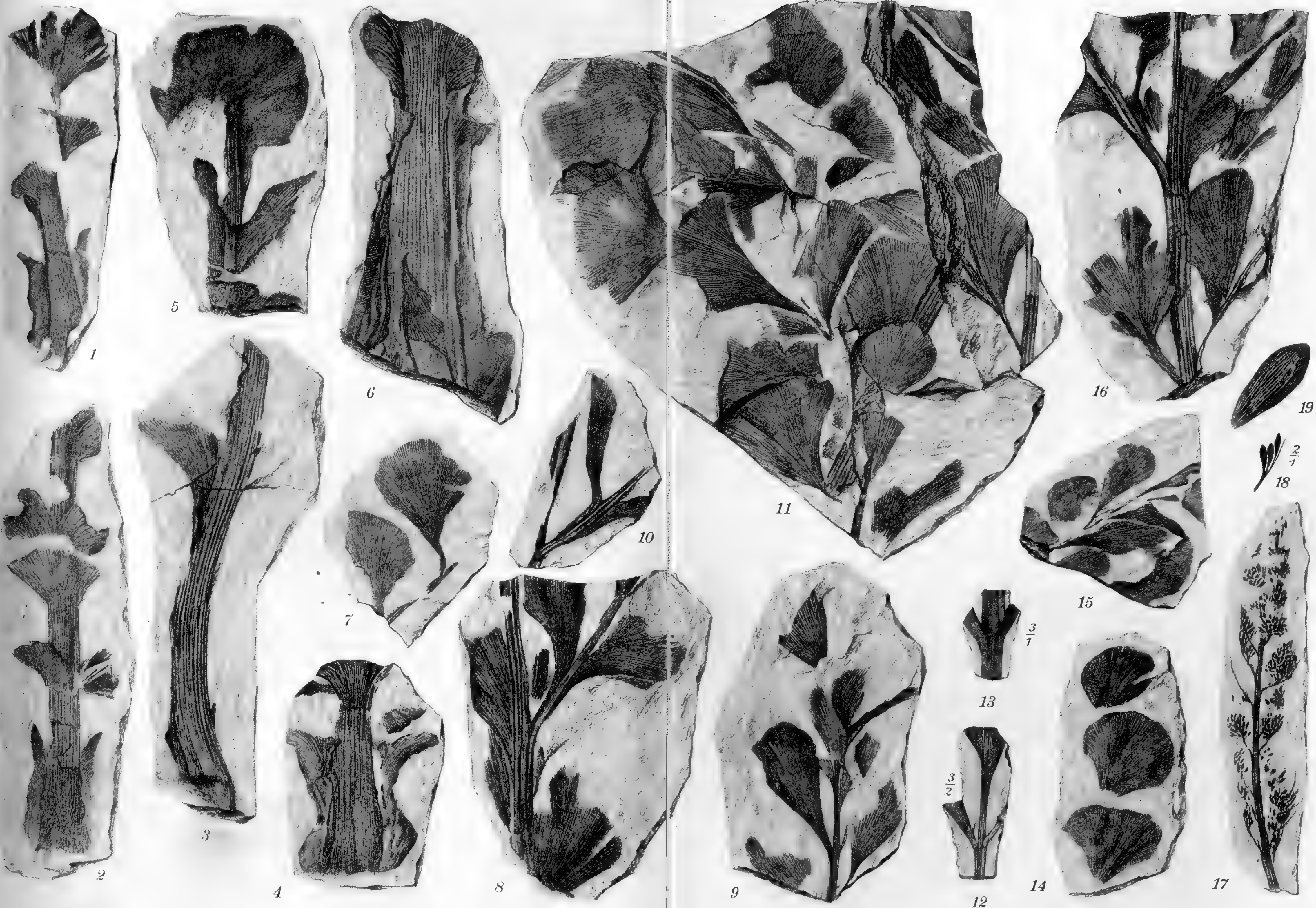

Th. Ekblom del.

Ljustr. Gen. Stab. Lit. Anst. Stockh.

head, some, however, had one or two additional ones from the axils of the upper stemleaves. Aug. 8th, 1900, both specimens in full flower as well as such as had already ceased to flower, were found on open, sunny, grass-clad ledges of rock; in the shade of an adjacent gully, the plant still stood in bud. As I had no occasion to revisit the only place where I found this species, I have had no opportunity to note if it develops its fruits. The NARES-expedition only gathered the leaves of it on Bellot Island; GREELY, however, notes the flowers of it as early as June 27th, but observes that it flowered late near the sea.

Grows mostly on grassy rock ledges, also in clay soil.

Occurrence. Grinnell Land: Bellot Island in Lady Franklin Bay (leg. FEILDEN), HART; from the coast to 1500 feet, GREELY. Southern coast: Harbour Fjord, ledges of the Seagull Rock (2585).

Distribution: Northeastern Greenland, West Greenland from Foulkefjord, 78° 20′ southwards to 64° 10′, Arctic American Archipelago, Arctic America, Labrador, Canada (?), Rocky Mountains (?), Unalaschka, Arctic Asia from the land of the Chukches to the Gyda tundra, Novaja Semlja, Spitsbergen, Northern Scandinavia.

From Alaska, Rocky Montains, and other more southern localities, I have, especially in the herbarium of the Nat. Hist. Mus., seen several specimens, determined as *A. alpina*, but certainly not belonging to the common arctic form. Perhaps it is only a variety of it, but I should be more inclined to think that there is an underscribed species distributed in those regions. In DECANDOLLE, Prodr. VI, p. 317, also under *A. angustifolia*, VAHL the following observation is to be found: "Folia specim. Groenlandicorum integerrima, sinus Laurentii denticulata, duas forte species indicant". The specimens from southern latitudes are distinguished not only by the dentate leaves, but also by a feebler villosity, especially of the bracts of the involucre, broader rays, long-petiolate leaves and by a coarser rhizome. I have seen no specimens intermediate between *A. alpina* and *A. montana*, L. that could warrant its being placed as a variety under the latter species.

Antennaria alpina, (L.) GAERTN.

A. alpina, GAERTNER, Fruct. et sem. plant., 1791; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; R. BROWN, Chlor. Melv.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; *Gnaphalium alpinum*, LINNÆUS, Sp. plant., 1753.

Fig. Fl. Dan., T. 2786.

Found only June 6th, 1899 with stems of last year. The fruit seemed hardly to have been developed.

Grew in somewhat boggy, shallow soil on the surface on top of a rock, about 200 feet above sea-level.

Occurrence. Eastern coast: Hayes Sound, on a promontory at the mouth of Flagler Fjord (490).

Distribution: East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Arctic Asia, Altai a. o. mountains, Arctic Russia, Northern Scandinavia, the Alps, Iceland.

Erigeron uniflorus, L.

E. uniflorus, LINNÆUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; HART, Bot. Br. Pol. Exp.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

As I did not find this species either on the south or east coast, I have only seen some specimens collected by HART at Discovery Harbour. These agree with *E. eriocephalus*, J. VAHL, which is, however, only a variety of *E. uniflorus*, differing principally in the dense villosity of the upper part of the stem and the bracts (cf. BERLIN, Kärlv. sv. exp. Grönl., ROSENVINGE, 2 Till., and HARTZ, Fan. o. Karkr., p. 339 sub *E. eriocephalus*). Still, it is possible that GREELY's specimens are the principal form.

Occurrence. Grinnell Land, Discovery Harbour in Lady Franklin Bay, HART (!), GREELY.

Distribution: East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, Unalaschka, Arctic and Eastern Siberia, Altai and other mountains, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, the Alps and other European mountains.

Erigeron compositus, PURSH.

E. compositus, PURSH, Fl. Amer. sept., 1814; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HOOKER, Arct. pl. Sabine, et Fl. Bor. Amer.; HART, Bot. Br. Pol. Exp.; *E. compositus* var. *trifidus*, GREELY, Rep.; *E. trifidus*, HOOKER, Fl. Bor. Amer.; *Cineraria Lewisii*, RICHARDSON, App. Franklin I, Ed. II.

Fig. HOOKER, Arct. pl. Sabine, T. 13; HOOKER, Fl. Bor. Amer., T. 120.

Of this species also, I have only seen HART's specimens in the herbarium of the Nat. Hist. Mus. and at Kew. It was missing in the southern parts of the land, which is the more astonishing, as it seems

to be rather common in the adjacent parts of Greenland on the other side of Smith Sound.

Occurrence. Grinnell Land, Discovery Harbour in Lady Franklin Bay, "common in many places", HART(!), GREELY.

Distribution: East Greenland, Northern West Greenland, Arctic American Archipelage, Arctic America, Rocky Mountains, and down to Utah and California.

Campanulaceae.

Campanula uniflora, L.

C. uniflora, LINNÆUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, in Vegaexp.; ANDERSSON. & HESSELMAN, Spetsb. kärlv.

Fig. Sv. Bot., T. 526; Fl. Dan., T. 1512.

The Ellesmereland specimens are, as a rule, well grown and robust, attaining a height of 15 cm., with many flowering, as well as sterile, stems from the rhizome. The corolla is always shorter than the fully developed fruit, sometimes also than the ovary. The relative length of corolla and sepals is very variable; specimens with a corolla of the length of the sepals, and even shorter, are to be found, as well as such as have it longer, in some cases nearly three times as long. These seem to come near to the form that has been called *C. Gieseckeana,* (VEST), which, according to DECANDOLLE, Monogr. Camp., p. 339, and Prodr., 7, p. 482, is distinguished "corolla calyce quadruplo longiore". According to the latest treatment of the genus *Campanula,* WITASEK, Beitr. Kenntn. Camp., p. 50—53, however, this name is not meant for any form of *C. uniflora,* but for an arctic species, allied to *C. rotundifolia,* or a subspecies of the latter, comprising the arctic forms that are conveyed to that species. It seems also probable, that VEST originally had such a form in view.

In the Ellesmereland- and in most of the Greenland-specimens, the lobes of the corolla are glabrous.

The flowering time seems to be very short, about a fortnight, after the middle of July only solitary, belated flowers are to be found among the well-developed ripe or half-ripe fruits.

Grows on grassy ledges and slopes, and is therefore, as it seems, restricted to the archaean districts of the eastern and south-eastern coast, probably it is entirely missing in the lime and sandstone territory

of south-western Ellesmereland, where such localities are scarce and where it was looked for in vain.

Occurrence. East coast, outer parts of the Hayes Sound district: slopes of the high land of Cape Rutherford towards the lakes (323), the "green patch" at the north side of Fram Harbour (1091). It would doubtless have been found also in the interior of Hayes Sound, had I only had any opportunities of going there later in the summer. South coast, Harbour Fjord in several places (2156, 2227, 2243, 2590).

Distribution: North-eastern Greenland, West Greenland, Arctic American Archipelago, Arctic America, Rocky Mountains, St. Paul Island, Novaja Semlja, Spitsbergen, Scandinavian mountains, Iceland.

Scrophulariaceae.

Pedicularis capitata, ADAMS.

P. capitata, ADAMS, Descr. plant. min. cogn., 1817; STEVEN, Monogr. Ped.; LANGE, Consp. Fl. Groenl.; HART, Bot. Pr. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vega-exp.; LEDEBOUR, Fl. Ross.; *P. Nelsoni,* R. BROWN, in RICHARDSON, App. Franklin I.

Fig. HOOKER, Bot. App. Parry II, T. 1, fig. 1—5.

My specimens fully accord with the figures. This species differs from all other arctic *Pedicularis* by having a creeping rhizome. The stems have developed leaves only at the base, generally they stand single, sometimes however in denser groups, always accompanied by numerous leafy, but sterile shoots. The leaves are generally twice pinnately divided, the bracts are more or less reduced from the shape of the vegetative leaves, in especially luxuriant specimens they also show a tendency to acquire the double pinnate lamina of the basal leaves. The flowers in a capitate cluster, generally four in individuals from marshy localities where the plant was usually found. But in individuals from dry places, they were only 1—2, as GREELY describes the Grinnell Land plant (the figure in BRITTON & BROWN, l. c., depicts such a reduced state). The yellow flowers are pointed upwards, very large compared with the size of the plant, with a long tube and upturned lower lip. The capsule I have not seen, as the plants seems hardly to develop its fruit in Ellesmereland.

P. capitata is placed in the group *Sceptra* of the *Anodontae* by MAXIMOWICZ (Diagn. plant. as., p. 83), but BUNGE in LEDEBOUR, l. c., who has placed *P. Sceptrum carolinum,* L. in a sub-genus *Sceptrum,* puts

P. capitata in a group *Macranthae*. Doubtless the section *Anodontae* of MAXIMOWICZ is very heterogeneous, the *Sceptra* and *Acaules* at least should be removed from it, but it is rather difficult to say if *P. capitata* should be united with *P. Sceptrum* in the same section, sub-genus, or genus. The shape of the flower indeed supports such an arrangement, but there is perhaps too great a difference in the form of the capsule, which also yields a prominent character of the genus *Sceptrum*, (RUDB.) HARTM. The capsule of *Sceptrum* is almost spherical (as also in *P. acaulis*, WULF.), but it seems perhaps not to be so in *P. capitata* as far as can be judged by the descriptions of BUNGE in LEDEBOUR, l. c.

P. capitata grows chiefly in marshy soil and flowers rather late, not before the beginning of July.

Occurrence. Grinnell Land: Discovery Harbour, HART, GREELY. Hayes Sound district; rather scarce: Promontory at the mouth of Flagler Fjord, "Fort Juliane", interior of Beitstad Fjord, Twin Glacier Valley (875); Bedford Pim Island, Rice Strait side (1249); NARES expedition. South coast; rather common in the archaean district: Fram Fjord (1626); Harbour Fjord in several places (2334, 2509, 2577); and also in the lime and sandstone region: Muskox Fjord; Goose Fjord, in several places; Walrus Fjord.

Distribution: North-western Greenland, Foulke Fjord; Arctic American Archipelago, Arctic America, Unalaschka, East Arctic Siberia to Taimyr Peninsula, Kamshatka.

Pedicularis hirsuta, L.

P. hirsuta, LINNÆUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vega-exp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *P. sudetica*, HART, Bot. Br. Pol. Exp., non WILLDENOW; *P. flammea*, HART, l. c.(?), non LINNÆUS; *P. Kanei*, TAYLOR, Fl. pl. Baffin B., non DURAND.

Fig. Fl. Dan., T. 1105; Tab. nostra 2, fig. 7—8, T. 3, fig. 1.

Most arctic travellers and authors who have written about arctic floras seem to have been able to distinguish this species from others, so far at least, that when a *P. hirsuta* is mentioned one may be generally certain that it is the real one. But as the above list of synonyms shows, it also figures sometimes under other names. The reason for these mistakes, I think, is mostly to be found in the indication of the floras about the colour of its flowers. Both in HARTMAN, Skand. Fl. (11th Ed., p. 119), and in NEUMAN & AHLFVENGREN, Sv. Fl., p. 147,

the flowers are said to be pink, and LANGE asserts the same (l. c., p. 76), where he moreover finds fault with the statement of DURAND, Pl. Kan., that the colour is yellow and supposes that the latter has come to this conclusion through having seen only dried specimens (which probably was the case also with LANGE himself). However most of the specimens of *P. hirsuta* that I saw at Godhavn and Egedesminde had flowers that were of a very pale yellow or whitish colour, and in Ellesmereland also this was far more common than the pink. This also agrees better with the fact that in some cases *P. hirsuta* has been mistaken for *P. Oederi*, VAHL.

Such specimens must doubtless have induced HART to mention *P. flammea*, L. from Hayes Sound. I neither found it there, nor do any specimens in the Nat. Hist. Mus. or at Kew confirm the statement. However, it is not always easy to decide, with the help of the above mentioned herbaria, how the collector or original author has himself determined the specimens, as the label generally contains only the locality where the plant is found, not any specific name, and their present arrangement can consequently very well be of a later date. Still I think myself justified in concluding from the non-existence of specimens in the London herbaria, that at first the plant was wrongly determined but had since been put in its right place. On the other hand, some authors who have rightly identified the *P. hirsuta* with yellow flowers, have taken the form with pink flowers for another species. Such was the case with a specimen from Shift Rudder Bay, leg. FEILDEN, with "*P. sudetica*, L. (*P. Langsdorfi*, FISCH.)" on the label and also with other specimens of FEILDEN and HART in the Kew herbarium, some from Danish Greenland, where the real *P. sudetica*, L. is entirely lacking (cf. also SIMMONS, Dan. Greenl. pl.).

A confusion of *P. hirsuta* with *P. lanata*, CHAM. & SCHLECHT., has also sometimes taken place, to which I shall have to refer again under that species. Indeed the likeness between these two species is small enough and the mistake is only possible for one who has not studied the plants in question from nature.

P. hirsuta differs widely from *P. lanata* in the slenderer growth, the thinner-set spike which is far less hairy, and especially in the very remarkable dilatation of the petiole and rachis of the leaves. The corolla has a sack-like, contracted galea that almost entirely encloses the stamens and the style. Sometimes the galea is cleft in the middle (in dried specimens this is not uncommon) so as to give it the appearance

of being furnished with teeth — a characteristic never found in the species, as it belongs to the section *Anodontae*.

P. hirsuta bears a greater resemblance to a species of the section *Bidentatae*, namely *P. arctica*, R. Br., and a confusion between the two could easily arise if the teeth in the apex of the galea (with which the latter species is furnished) are not observed.

P. hirsuta grows chiefly in grassy places, rock-ledges as well as in evener loamy ground, by the side of brooks, etc., but also in more open gravely places. It seems hardly to be in flower before the end of June, and in August specimens still flowering are to be found together with such as already have ripe and opened capsules.

Occurrence. Grinnell Land: Discovery Harbour, leg. Hart(!), Shift Rudder Bay, leg. Feilden(!). Hayes Sound district: rather commen but in general not plentiful. Specimens from: Fram Harbour (281, 1107), Cape Rutherford (685), Twin Glacier Valley (878), South coast: somewhat less common: specimens from Fram Fjord (1651), Harbour Fjord (2232), Goose Fjord (2880, 3647, 3956).

Distribution: East and West Greenland except in the south, Arctic American Archipelago, Arctic America, Siberia, Novaja Semlja, Spitsbergen, Arctic Russia, Northern Scandinavia.

Pedicularis lanata, Cham. & Schlecht.

P. lanata, Chamisso & Schlechtendal, Pl. Romanzoff., 1827; Lange, Consp. Fl. Groenl.; Nathorst, N. W. Grönl.; Simmons, Prel. Rep. et Bot. Arb.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; *P. Langsdorfi*, Steven, Monogr. Ped., ex p. et β; Hooker, Fl. Bor. Amer., ex p.; *P. Langsdorfi* var. *lanata*, Greely, Rep.; *P. Kanei*, Durand, Pl. Kan.; *P. hirsuta*, Hart, Bot. Br. Pol. Exp.; Taylor, Fl. pl. Baffin B.; non Linnaeus.
Fig. Fl. Dan., T. 1821; Tab. nostra 2, fig. 1—3.

It is rather curious, that such a beautiful and distinct species should not always have been easily distinguished; nevertheless, several authors have confounded it with *P. arctica*, R. Br. (*P. Langsdorfi*) or with *P. hirsuta*, L. The latter mistake is made by Durand, who in Pl. Kan. has the name *P. lanata* as a synonym for *P. hirsuta* and consequently he has set up what was really *P. lanata* as a new species *P. Kanei* (cf. Asa Gray, Pl. Rocky Mtns., p. 251, and Maximowicz, Diagn. plant. as. II). There can be no doubt of this, when the notes about the *Pedicularis*-forms in the above-quoted papers are compared. The real *P. lanata* was first brought home from the Bering Sea region, and the name is first used in herbarium labels by Willdenow and Pallas, but

it is rather difficult to make sure how the have used it. If STEVEN (l. c.) is right, FISCHER seems to have put it as a variety under *P. Langsdorfi,* but a few years after the publication of STEVEN's monograph, appeared the work of CHAMISSO & SCHLECHTENDAL about the plants of the Romanzoff expedition, and here the two very different species were kept apart, as CHAMISSO had had the opportunity of studying them from nature. There cannot be the least doubt about the meaning of the name as used by CHAMISSO and SCHLECHTENDAL, and consequently it must be used for the species in question. No consideration is to be given to the unpublished names; and even STEVEN's name is put out of the question owing to the confusion in his monograph — a point to which I shall return later. Of subsequent writers, BUNGE in LEDEBOUR's Fl. Ross. follows CHAMISSO, and so also does MAXIMOWICZ (l. c.), but HOOKER (l. c.), on the other hand, has adopted STEVEN's arrangement but with the difference, that for him „the more common woolly-spiked state of the plant“ that STEVEN designed as „β calyce lanato“ („syn. *P. lanata,* PALL. in herb. MARSHALL et WILLDENOW“ according to STEVEN, l. c.) becomes the principal type, which he says that FISCHER himself has marked is his (HOOKER's) herbarium as his *P. Langsdorfi.* In his monograph indeed, STEVEN has figured his *P. Langsdorfi* (T. 9, fig. 2), but this figure is not one that can settle the question, for it calls to mind both — having the flowers of *P. arctica,* with distinct teeth at the upper part of the brim of the galea, while the basal leaves appear to be those of *P. lanata.* The spike most nearly resembles that of the latter species, but the dense hair is not indicated in the figure. Possibly the figure is schematic, perhaps also the confusion may partly be due to the existence of yet another form. In the Nat. Hist. Mus. herbarium I saw a specimen from Kamshatka, ex. herb. PALLAS, which was most like *P. lanata,* except for the existence of a pair of very slender teeth at the apex of the galea of some flowers. It was also less woolly than the typical *P. lanata.* It may possibly represent an undescribed species, perhaps a hybrid between *P. arctica* and *P. lanata.* This was the only specimen about which I was really in doubt as to how to classify it, in all other cases specimens from Asia as well as from America always clearly showed either the characters of *P. arctica* or of *P. lanata* and, in the latter case, were never denticulate at the galea. If *P. arctica* is removed from the *Anodontae* as it ought rightly to be, together with *P. elata,* WILLD., and *P. striata,* PALL., and these three species are placed among the *Bidentatae* (*Lophodon*), we get the sharp difference between these and the *Anodontae,* that BUNGE has estab-

lished in his excellent arrangement of the genus in LEDEBOUR (l. c.), which I think superior to that of MAXIMOWICZ, which is adopted by WETTSTEIN in ENGLER & PRANTL, Pflanzenfam.

From the nearest allied edentate species, *P. hirsuta*, our plant is well defined both by its habit and by its specific characters. It is easily distinguished by the stiff, erect stem (solitary in most Ellesmereland specimens, numerous in most specimens from Greenland), by the glabrous deeply incised, fernlike leaves, the rachis of which is not nearly so broad as in *P. hirsuta* and *P. arctica;* lastly by the very dense spike, with the thick, woolly clothing, which is retained even in the fruiting state of the plant. The corolla has a rosy colour, is much larger than in *P. hirsuta* and rather open, but the lips are equally long. The upper forms a galea that is not cucullate but rather spoon-shaped. When fully developed, the style is not included, but protrudes from the galea. The capsule is very short and broad, and more oblique than in the other species.

P. lanata grew mostly in rather wet places having a dense vegetation, but it was also found on gravelly bottom, along rivers together with *Carices.* Outside the archaean district I only found it in one place. Was (1900) in flower from the end of June to the end of July.

Occurrence. Grinnell Land: Discovery Harbour (HART!), (GREELY ?) South coast: Fram Fjord (1649); in the Harbour Fjord it was rather common in grassy slopes (2114, 2174, 2186, 4261); Muskox Fjord in wet slopes in the innermost part and in the bottom of the river valley on gravelly soil.

Distribution: Western Greenland down to 67°, Arctic American Archipelago, western Arctic America, Rocky Mountains, islands of the Bering Sea, Arctic Siberia, Kamshatka, Northern Ural, Novaja Semlja, Spitsbergen.

Pedicularis arctica, R. BR.

P. arctica, ROB. BROWN, Chlor. Melv., 1823; DURAND, Pl. Kan.: *P. Langsdorfi*, STEVEN. Monogr. Ped., exp.; CHAMISSO & SCHLECHTENDAL, Pl. Romantzoff.; HOOKER, Fl. Bor, Amer., ex. p.; LEDEBOUR, Fl. Ross.; MAXIMOWICZ, Diagn. plant. as.; KJELLMAN, in Vegaexp.

Fig. Tab. nostra 2, fig. 4—6.

In his description of the new species of *Pedicularis* brought home by PARRY from Melville Island 1820, ROB. BROWN says: "Corolla purpurea, glaberrima: galea leviter falcata, obtusa, ante apice oblique truncata et ad truncatura basin utrinque dente unico acuto brevi quandoque

brevissimo". This description shows clearly enough that the question is about a species of the bidentate section, and had BROWN's description only been duly observed, no complications would have arisen about this species, but unluckily, in the same year (1823) there appeared the above-quoted monograph of STEVEN where the plant in question was put together with *P. lanata* under the name *P. Langsdorfi*, which FISCHER had used in herbarium labels, most probably instead of the present *P. lanata* (cf. above).

However the name of ROB. BROWN was buried among the synonyms and that of *P. Langsdorfi* went its way through literature to comprise more or less heterogeneous things in the works of different authors. Some used it only for the plant, which by right should bear the equally old and unambiguous name given by BROWN. Such are CHAMISSO & SCHLECHTENDAL, BUNGE in LEDEBOUR (l. c.) and MAXIMOWICZ. HOOKER, as already mentioned, has thrown it together with *P. lanata*. DURAND alone, in Pl. Kan. has upheld the name of R. BROWN, but he too seems to have altered his views afterwards, for in Enum. pl. Smith S., he speaks of *P. Langsdorfi* instead of *P. arctica* (p. 94, note). LANGE Consp. Fl. Groenl., p. 76, puts *P. arctica*, R. BR. as a synonym under *P. lanata* though he says about *P. Langsdorfi* "a praecedente (*P. lanata*) abunde differt" (p. 77). And this he does, notwithstanding that he seems to have seen specimens of the plant from the KANE expedition, of which DURAND says: — "Flowers dark purple, with two small teeth at the helmet"; which is enough to show that DURAND has had the real *P. arctica* and not *P. lanata* in front of him.

The great resemblance in habit, shown by the plant in question to *P. hirsuta*, caused me, when I first found it, to take it for a variety of that species; but, on closer inspection, it soon proved to be well distinguished from it. But I was inclined to use the name *P. Langsdorfi* for it, and, misled by LANGE, I also doubted if the name of ROB. BROWN had any reference to it. On seeing the original specimens of BROWN's plant (Melville Island, leg. E. SABINE) in the Nat. Hist. Mus., I immediately recognised it as the same as that which I had collected, and it hardly needed further confirmation of specimens in the Kew herbarium, to convince me that this was the same plant as *P. Langsdorfi*, and that BROWN's name with its clear description, was the only one that could be used for it.

As my specimens are almost entirely in accord with the description in Chlor. Melv. it may be enough to refer to it; but there is one point in which they are somewhat different. The Melville Island specimens have a single stem, but my specimens from Hayes Sound have

several assurgent stems. This is also the case with most specimens from other parts of Arctic America; and even specimens collected by CHAMISSO at Unalaschka (in the Copenhagen herbarium) show a close resemblance; but I have also seen specimens collected by KJELLMAN at St. Lawrence Island, which have larger and more open flowers with longer tube, and somewhat longer upper lip, but for the rest, not differing from mine. Even my specimens have the upper lip somewhat longer than the lower one, which, although the case also with the original specimens, is not mentioned in the description of ROB. BROWN.

Besides the section-character, the bidentate galea, *P. arctica* differs from *P. lanata* in its laxer stems, in the broad rachis of the leaves — which reminds one very much of *P. hirsuta* — in a shorter and less dense spike, in the less developed wool, in the long tube and upper lip, in the dark purple colour of the flowers and in the shape of the capsule which is much longer and less oblique, protruding with one-third of its length over the calyx, taking almost the middle place between that of *P. lanata* and *P. hirsuta*. On the other hand, there is a resemblance in the protruding of the style from the galea.

To *P. hirsuta* it shows a great resemblance in habit and in the shape of the leaves, even though the rachis is less broadened than in that species. The flowers are much larger, longer, more open and the galea is not nearly so cucullate contracted as in *P. hirsuta*. Even the protruding style forms a distinguishing character from the ordinary specimens of that plant, where the galea is not split open.

The purple colour of the flowers also forms a distinguishing character, as far as Ellesmereland specimens of *P. hirsuta* are concerned, but I have seen some specimens from Spitsbergen that resemble *P. arctica* so much, that I was obliged first to examine them more closely to make sure that the plant really was *P. hirsuta*. The flowers, also, were unusually large. It is probably of this form that NATHORST, (Nya bidr., p. 11) speaks, although he characterises the flowers as pink (enbart ljusröda). I was also reminded of *P. sylvatica* when I first saw *P. arctica*.

The species grew on svampy ground with a dense vegetation of *Carices*, grasses etc., and at the edges of pools, and was in full flower in the beginning of July 1899, the only time I saw it. The shape of the fruit could be judged from numerous capsules remaining from the previous year, that doubtless had been ripe in the autumn.

O c c u r r e n c e. Only found at the outer part of Hayes Sound (Buchanan Strait): Lastraea Valley (abundant, 858), Eskimopolis (847,

probably the same place which HART speaks of as "Deserted village"), neighbourhood of Cape Viele (882).

Distribution: Northwestern Greenland, Renselaer Bay, leg. KANE (DURAND), Western Islands of the Arctic American Archipelago, Western Arctic America, Alaska, Unalaschka, St. Paul Island, St. Lawrence Island, Arctic Siberia westward to the Lena, Kamshatka.

Pedicularis lapponica, L.

This species is mentioned by HART, Bot. Br. Pol. Exp., for his localities 7, 8 and 12; further he says: "Sparingly at Disco and Rittenbank; more common at Foulke Fjord, Walrus Island, and in Hayes Sound. Scarce in Discovery Bay". Now *P. lapponica* is, in reality, the most common species of the genus at Disco Island, where it is met with wherever there is a suitable locality for it, but in Foulke Fjord it is never found by others, not even by HAYES who had his quarters at Port Foulke; moreover it is nowhere observed in Western Greenland north of the Waigat. In Foulke Fjord, as well as in Hayes Sound I looked for it in vain. Consequently I already doubted HART's statement before I had had an opportunity of inspecting the London collections. In the Nat. Hist. Mus. herbarium there are no specimens from the NARES expedition, except one which has no indication of its source. In the Kew herbarium, however, I found a single specimen with "Dobbin Bay, HART" on the label. I cannot help thinking that this is a Danish Greenland specimen which has been thus labelled by mistake. Not one other single specimen from the entire Archipelago was to be found.

Plumbaginaceae.

Statice maritima, MILL.
var. *sibirica*, (TURCZ.) m.

Armeria sibirica, (TURCZANINOW, in pl. Dahur. exs.) ex BOISSIER, in DECANDOLLE, Prodr. XII, 1848; LANGE, Consp. Fl. Groenl., ex p.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, in Vegaexp.; HARTMAN, Skand. Fl.; *A. vulgaris* var. *sibirica*, ROSENVINGE, 2 Till.; KRUUSE, List E. Greenl ; *Statice Armeria*, HOOKER, Fl. Bor. Amer., ex p.; BRITTON & BROWN, Ill. Fl., ex p.; *St. sibirica*, LEDEBOUR, Fl. Ross.

Fig. Fl. Dan., 2769.

The old Linnean genus-name *Statice* has been variously used by later authors, to denote one or other of the two sections of the original

genus, and I have been in great doubt as to which was the right course to take. However at last, I came to the conclusion that *Statice* must be used for those species that are comprehended by most authors in *Armeria*, WILLD. The division in *Statice* end *Limonium* seems to have been first used by FABRICIUS in a work which I have not however been able to get hold of (Enumeratio methodica plantarum horti medici Helmstadiensis, 1759). Before the appearance of LINNAEUS's Species plantarum, the generic names *Statice* and *Limonium* had already been used by MILLER in his Gardeners's Dictionary, and in a new edition of this book of 1768, where the binary nomenclature is adopted, there are descriptions of both genera, as well as of the typical form of the species now in view. Now as this publication, against which no objection can be brought, is so much older than WILLDENOW's Enum. pl. horti Berol. (of 1809), the question is so far settled; but if the rule be accepted, that old generic names, which have been out of use for more than fifty years, should not be taken up again, it might be possible that the name of WILLDENOW ought in such a case to be preferred. There is, however, no difficulty in finding systematic works where the names are differently used, as is already shown in my short list of synonyms. Consequently I must agree with DRUCE, Brit. Seathrifts, where the question is discussed in detail, that it is necessary to adopt the names of MILLER again.

Another question is how far DRUCE is right in distinguishing so many species from *St. Armeria*, L. Careful study, perhaps preferably in combination with experimental culture, will probably also be necessary, before a definite conclusion is possible, if *St. maritima*, MILLER, should be looked upon as specifically different from *St. Armeria*. DRUCE, as well as BOISSIER, l. c., considers that the pubescence of the calyx renders a good character for the discerning of species. As I have no results of investigation to set against his view, I am willing to adopt it so far as to allow *St. maritima* to stand as a species, but I must transfer the *St. sibirica* of LEDEBOUR under it as a variety, as they are connected by a continual series of intermediate forms. In its most northern localities, *St. maritima* seems always to be represented by var. *sibirica*, as also where further south it is found in alpine stations or at least on higher montains, for instance in the Faeroes. In southern Greenland both forms are met with.

Among his synonyms LANGE (l. c.) also has: — "*A. labradorica*, (WALLR.?) RINK". Now this of course may be right enough for the Greenland plant of RINK, but even if *St. labradorica* is also mentioned

from Greenland by BOISSIER, l. c., p. 678, notwithstanding I doubt whether WALLROTH's plant is the same. Indeed I have not seen the original of WALLROTH (Beiträge, p. 185—86), but the description seems to show that, even if a *St. maritima* is probably meant, it cannnot be var. *sibirica*. Specimens from Labrador lying in the Nat. Hist. Mus. herbarium under the name "*A. labradorica*" had the outer bracts of the involucre rather narrow and pointed, without membranaceous margin, which accords with the description. Their most noteworthy character is not mentioned in the description, viz., that the calyx is so minutely and scarcely perceptibly pubescent as to be nearly glabrous on the ribs as well as between them. *A. arctica*, WALLR., which is also found in Arctic America belongs to the *Pleurotrichae*.

The Ellesmereland specimens are very low, densely tufted, because of the multicipital rootstock, but have rather big heads. In its only station within the area, it grew in rather wet, occasionally flooded, places, along small rinlets in company with *Carices*, *Eriophorum polystachium*, etc. When found, August 26th, 1899, it had almost ceased to flower.

Occurrence. South coast: in the great western valley in Fram Fjord (1625).

Distribution (of the variety): Northeastern Greenland, West Greenland, Arctic American Archipelago, Arctic America, Northern Siberia, Baikal (alpine?), Finmark, Faeroes, Iceland. The principal form is distributed along the coasts of the temperate parts at least of Europe and America.

Primulaceae.

Androsace septentrionalis, L.

A. septentrionalis, LINNÆUS, Sp. plant., 1753; HOOKER, Fl. Bor. Amer.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; LEDEBOUR, Fl. Ross.
Fig. Sv. Bot., T. 483; Fl. Dan., T. 7.

For my own part, I have not found this plant, and I was rather inclined to think that sooner *A. Chamaejasme*, HOST, could have reached Grinnell Land, as I knew it to have been found in the south western islands, but specimens seen in the Nat. Hist. Museum and at Kew showed that HART's determination was right. It can hardly be supposed but that *A. septentrionalis* must also exist to the southwest, even if as yet it is only found on the arctic coast of the continent.

Grows in clay or rocky soil, doing best in the former (GREELY); in bloom June 22, 1883.

Occurrence. Grinnell Land, Lady Franklin Bay: Discovery Harbour(!) Bellot Island, Mount Cartmel (HART, GREELY).

Distribution: Grinnell Land, Western Arctic America, Rocky Mountains, Alaska, whole temperate Asia and Europe.

Diapensiaceae.

Diapensia lapponica, L.

D. lapponica, LINNAEUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; GREELY, Rep.; LEDEBOUR, Fl. Ross.; KJELLMAN, in Vegaexp.

Fig. Sv. Bot., T. 517; Fl. Dan., T. 47.

This species is only stated by GREELY. As here also no specimens are known from adjacent regions, either on the Greenland, or on the American side, the distribution must be supposed to be only very imperfectly known. The nearest place where it is found in the Archipelago is southern Baffin Land, in Greenland it is found northwards to 74° 18′.

GREELY, Three years, App. IX, p. 391, says: "Only a single specimen of this plant was found, and Sergeant Jewell, the collector, was unable to give exact information as to its habitat."

Occurrence. Grinnell Land, Discovery Harbour (GREELY).

Distribution: East Greenland to Scoresby Sound, West Greenland, Grinnell Land, Baffin Land, Arctic America westwards to Great Fish River, Labrador, Adirondacks, White Mountains of New Hampshire, St. Lawrence Island, Land of the Chukches, and westward to the Lena River, Kamshatka, Japan, northern Ural, arctic Russia, northern Scandinavia, Iceland.

Ericaceae.

Myrtillus uliginosa, (L.) DREJ. var. *microphylla,* (LANGE) SIMM.

*Vaccinium uliginosum, L. *microphyllum,* LANGE, Consp. Fl. Groenl.; *V. ulig.* var. *microphyllum,* NATHORST, N. W. Grönl.; KRUUSE, List E. Greenl.; *V. pubescens,* HORNEMANN, Fl. Dan., T. 1516, non *V. ulig.* var. *pubescens,* LANGE, l. c.; *V. uliginosum,* HOOKER, Fl. Bor. Amer., ex p.; HART, Bot. Br. Pol. Exp.; *Myrtillus uliginosa* var. *microphylla,* SIMMONS, Prel. Rep. et Bot. Arb.

Fig. Fl. Dan., T. 1516.

Notwithstanding the intermediate forms between this and the typical one, from Jylland, the Faeroes, etc., of which LANGE speaks himself, he

has made the arctic form a sub-species which seems rather out of place. With equal right could the *f. Kruhsiana,* (FISCH.) of which KJELLMAN and LUNDSTRÖM, Fan. Nov. Seml., p. 305, speak, and of which I have myself seen specimens, be regarded as a species. It is, however, only a still more reduced form than that here in view. That I could have looked up individuals that were small and stunted enough and had sufficiently small and rounded leaves to pass muster as *f. Kruhsiana* I do not doubt, but on the other side also, plants that differed rather little from the southern, typical form could be found. The growth of the whole shrub, as well as that of the leaves, was very variable, but only in specially favorable localities, such as the *Cassiope*-heath at Buchanan Strait, it rose to a height of perhaps eight or ten inches above the ground, mostly it crept between grass and mosses, or lay espalier-like spread close to the soil.

The flowering was generally rather poor, and only exceptionally any more considerable number of berries was seen. I never saw them quite ripe, but that doubtless was because I never had occasion to observe the plant during the later part of the summer.

In the heath-like vegetation that covered some of the valley bottoms at Buchanan Strait, *Myrtillus* was found in great abundance, as well as in grassy slopes, mostly growing sociably. The flowers were found about the end of June.

Occurrence. East Coast: Hayes Sound district, rather common; Specimens from: Fram Harbour (1101), slope down from the plateau of Cape Rutherford (304), Lastraea Valley (840). Noted by HART from "Deserted Village" and Twin Glacier Valley. South coast: rather common in the archaean territory (spec. from Harbour Fjord, 2226) and also observed in Muskox Fjord.

Distribution (here no difference is made between different forms of the species): East and West Greenland, Arctic American Archipelago, arctic and temperate America to the Saskatschawan, Mountains of New England and Adirondacks, New Foundland, Unalaschka, Siberia down to Altai, Novaja Semlja, northern and middle Europe, Faeroes, Iceland. To give the distribution of the present variety is impossible, as it is not distinguished for instance by HOOKER and LEDEBOUR. Probably it occurs here and there along the northern boundary of the area af the typical form, and occasionally even further south.

Cassiope tetragona, (L.) D. Don.

C. tetragona, D. Don, Arrang. Eric., 1834; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Simmons, Prel. Rep. et Bot. Arb.; Britton & Brown, Ill. Fl.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; *Andromeda tetragona*, Linnaeus, Sp. plant., 1753; Hooker, Fl. Bor. Amer.; Andersson & Hesselman, Spetsb. kärlv.
Fig. Fl. Dan., T. 1030.

Most commonly distributed in the archaean districts, where in slopes and valley-bottoms that are not too svampy, but, on the other hand that are not exposed to drying out, it can cover wide areas. Especially in the great valleys at the outer Hayes Sound, Lastraea Valley, Twin Glacier Valley, and others, it forms together with *Myrtillus* and *Empetrum* heaths of considerable extent. A similar vegetation, probably, is that seen by Greely in the valleys around Lake Hazen, where, however, both accompanying plants are absent. Also *Gymnocybe turgida* and *Peltigera aphtosa* (?) are often its companions. In the limestone regions it is scarce, and here as also in very dry localities of the archaean district it appears in a dwarf form, only an inch or a couple of inches high, whereas in favorable localities it can sometimes attain to a height of at least 15 inches.

It began to flower about midsummer time, and seemed mostly to fruit abundantly.

Occurrence. Grinnell Land, Lake Hazen Valley (Greely). East coast; common in the entire Hayes Sound district, first noted by Hart. Specimens from: Bedford Pim Island (275), Cape Rutherford (319), Twin Glacier Valley (876), Fram Harbour (1082). Southern coast, abundant to the eastward, specimens from Fram Fjord (1658) and Harbour Fjord (2247); scarcer to the west, specimens from the Yellow Hill in the Goose Fjord (3575) but also observed at the bottom of the fjord. West coast: Braskerud plain, south of Bays Fjord according to Isachsen (no specimens collected); between Baumann Fjord and Eidsfjord.

Distribution: Northern Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Alaska, Unalaschka, St. Lawrence Island, Siberia to Baikal, Ural, Arctic Russia, Spitsbergen, Northern Scandinavia.

Pyrolaceae.

Pyrola rotundifolia, L.

var. *grandiflora,* (RAD.) DC.

P. grandiflora, RADIUS, Diss. Pyrola, 1821; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, in Vegaexp.; *P. rotundifolia* var. *pumila,* HORNEMANN, Dansk Oec. Plantel. I, 1821; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl ; LEDEBOUR, Fl. Ross.; *P. groenlandica,* HORNEMANN, l. c. II; *P. rotundifolia* var. *grandiflora,* DECANDOLLE, Prodr., VII; ROSENVINGE, Nye Bidr.; KRUUSE, List E. Greenl.; *P. chlorantha,* DURAND, Pl. Kan.; HAYES, Op. Pol. Sea; et alii, non SWARTZ.
Fig. RADIUS, l. c., T. 3, fig. 2; Fl. Dan., T. 1817.

The plant in question was 1821 described indepedently from two quarters, viz., by HORNEMANN (l. c., I, p. 463) as *P. rotundifolia pumila,* and by RADIUS (l. c., p. 27) as *P. grandiflora.* HORNEMANN 1837 (l. c. II, p. 180) altered his name to *P. groenlandica.* The latter name can under no circumstances be used, and I cannot decide which of the other two has priority. I have preferred the name of RADIUS chiefly because it is the name most commonly used by later authors, and also because it is followed by a rather good figure. To uphold it as a species seems, however, not to be justified, how ever well defined it seems indeed in high latitudes, for already in the southern part of Greenland forms appear, that link it together with *P. rotundifolia* var. *arenaria,* KOCH, and therefore I have followed DECANDOLLE (l. c., p. 773) and the later works about the Greenland flora.

In its only locality in Ellesmereland, the plant grew in a densely, vegetation-clad slope together with *Salix arctica, Oxyria, Polygonum viviparum, Saxifragae,* etc., in an undergrowth of mosses. It was more stunted than the Greenland specimens generally are, and July 26th, 1899, when it was collected, it had not yet opened its flowers, even though numerous inflorescences were seen. As no old fruits were found, it is probable, that such are only seldom developed, and consequently, it has little chance of spreading further than it can reach with its creeping rhizome.

Occurrence. Only on the east coast, and there restricted to a small patch in the slope from the plateau of Cape Rutherford down to the great lake on the "Rutherfordeide" (1133).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Alaska, Northern Siberia and

Ural. Probably it goes over, everywhere to the southward, into typical *P. rotundifolia*, which has a wide distribution in the three continents. In Europe the var. *grandiflora* is not found.

Onagraceae.

Chamaenerium latifolium, (L.) Sweet.

Epilobium latifolium, Linnaeus, Sp. plant., 1753; Hooker, Fl. Bor. Amer.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Kjellman, in Vega-exp.; Ledebour, Fl. Ross.; *Chamaenerium latifolium*, Sweet, Hort. brit., Ed. 2, 1830; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Simmons, Prel. Rep. et Bot. Arb.; Britton & Brown, Ill. Fl.; Grönlund, Isl. Fl.; *Ch. halimifolium*, Salisbury, Parad. Lond.

Fig. Fl. Dan., T. 565; Hooker, in Salisbury, l. c., fig. 58.

A plant which, even if it is not at all rare in the archaean districts, nevertheless may during many summers not reach to flowering and still less to the development of ripe fruit. During the whole summer of 1899 I could only find sterile specimens of it, except at Twin Glacier Valley, where young flower-buds were seen (July 5th). In the summer of 1900, which was rather warm, I saw it flowering richly at several points, and already at the beginning of August, the fruit was nearly ripe in the neighbourhood of our anchorage in the Harbour Fjord. Probably, however, it had time enough to flower and to ripen its capsules even in the preceding summer, at least in the interior of Hayes Sound, to which region I had no opportunity of going after June 12th. But in cold summers, such as 1901, it will probably not even reach to flowering, at least not to development of ripe seed. Kjellman also says (As. Beringss. Fan., p. 529), that this species in certain parts of the Asiatic north coast, must probably be reduced chiefly to vegetative propagation. For this also it is well provided, the more so, as it grows chiefly on loose, gravelly soil, with scarce vegetation, where its strong rhizome can creep far round about. The severe drying out, however, to which it is exposed in such places, brings with it the risk, that it may not be able, even in a year that is otherwise favorable, to ripen its fruit, as the capsules will dry up already at an early stage.

Occurrence. Grinnell Land: North coast, at Floeberg Beach (Hart); East coast: Discovery Harbour (Hart, Greely). Hayes Sound district, inner part: Fort Juliane (674), Beitstad Fjord; outer district: Twin Glacier Valley (Hart, Simmons), Cape Viele, Lastraea Valley. Bedford Pim Island, Rice Strait side (1313). South coast: Fram Fjord, Harbour Fjord (common and abundant, 2233, 2458, 2460, 2545), lacking on limestone

and, in sandstone-ground, only found in a single, small patch in the innermost part of the Goose Fjord (sterile).

Distribution: Greenland (probably to the far north), Arctic American Archipelago, Arctic America, Labrador, New Foundland, Rocky Mountains, Alaska, Bering Sea region, northern and eastern Siberia, Altai, Himalaya, Arctic Russia, Novaja Semlja, Iceland.

Empetraceae.

Empetrum nigrum, L.

E. nigrum, Linnaeus, Sp. plant., 1753; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Hart, Bot. Br. Pol. Exp.; Simmons, Prel. Rep. et Bot. Arb.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; *E. rubrum*, Durand, Enum. pl. Smith S. Fig. Fl. Dan., T. 975.

I only found this species within a limited area, where, however, it was rather abundant, and, as previously mentioned, covered wide stretches of the peaty ground in the valleys, forming, together with *Cassiope* and *Myrtillus*, a kind of heath.

As I had had no opportunity of seeing other fruit than such as had wintered over — I visited its localities only as early as the beginning of July — it is impossible to state anything exact about the colour of the ripe fruit. However, I got the distinct impression, that it was red, not black, as is also the case in Foulke Fjord, the northernmost locality of the plant in Greenland. Durand, Enum. pl. Smith S., p. 95, calls it *E. rubrum*, Willd., but in Hayes' own list, Op. Pol. Sea, p. 398, it is called *E. nigrum*, and Durand himself had previously (Pl. Kan.) used the latter name for the north-west Greenland plant. As indeed the last-mentioned plant, and in all probability also, the Ellesmereland one, has red drupes it must represent one of the red-fruited varieties, but not *E. nigrum* var. *rubrum*, (Willd.) DC. This plant, originally described by Willdenow in his edition (IV) of Linnaeus, Sp. plant. IV, p. 713, and afterwards rightly reduced to a variety by Decandolle, Prodr., 16, I, p. 26, is, however not only distinguished from the typical form by its red fruit, but also by its pubescent twigs. This variety of which I have seen specimens from several localities in the southern part of South America, is entirely south-temperate. Further, there is another variety in the southern Andes, which also seems to have red drupes var. *Andinum*, (Phil.) DC., but that also seems to differ from the arctic plant. But there is still another red-fruited variety distin-

guished by DECANDOLLE (l. c.) as well as by ENGLER in ENGLER & PRANTL, Pflanzenfam. III, 5. This also is originally separated from *E. nigrum* and described as *E. purpureum* by RAFINESQUE, in his "New Flora of N. America", etc., which, however, I have had no opportunity of seeing, but as it seems according to be above-quoted works to differ from the type only in its red drupes and in a somewhat smaller stature and thicker-set leaves, there can be no doubt that this is our plant, which consequently is to be called *E. nigrum*, L. var. *purpureum*, (RAFIN.) DC.

However, I cannot assert that all Ellesmereland specimens have red drupes; it is possible, that black-fruited forms also grow there, moreover, as I have seen specimens with black drupes, not bigger than those of my specimens, from other high arctic localities. It is curious that red-fruited forms appear to be lacking in Danish Greenland, where the species is very common, the more so as the appearance of red drupes seems to stand in some connection with the climate, as may be inferred from their re-appearance in the far south.

Occurrence. East coast: along Buchanan Strait, at Twin Glacier Valley (850), Cape Viele (883), and Lastraea Valley; Cape Sabine (Bedford Pim Island) according to HART.

Distribution: The variety, according to DECANDOLLE, l. c., seems to have been found only in Labrador, New Foundland and in N. W. Greenland. The common form is distributed all over the arctic and temperate regions, as well as in Europe and Asia as in North America.

Rosaceae.

Dryas integrifolia, VAHL.

D. integrifolia, VAHL, Stell. groenl. et Dr. integr., 1798; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp. LEDEBOUR, Fl. Ross.; *D. octopetala *integrifolia,* KRUUSE, List E. Greenl.; *D. oct.* var. *integrifolia,* CHAMISSO & SCHLECHTENDAL, Pl. Romanzoff.; GREELY, Rep.; *D. tenella,* PURSH, Fl. Am. sept.; *D. octopetala,* DURAND, Enum. pl. Smith S.; HART, Bot. Br. Pol. Exp.; NATHORST, N. W. Grönl.; MEEHAN, Contr. Greenl.; et alii, non LINNAEUS.

Fig. Fl. Dan., T. 1216; HARTZ, Fan. o. Karkr., p. 321; DUSÉN, Gefässpfl. Ostgrönl., T. 5.

I have not tried to insert in the above list of synonyms, all statements in the literature about *D. octopetala,* such as should rightly be transferred to *D. integrifolia,* as I have not always seen the specimens on which the statement is based, but it may be asserted that all accounts about *D. octopetala* from western Greenland and the Arctic

American Archipelago, really have reference to broad-leaved forms of *D. integrifolia.* Among the many specimens that I have seen in going through the collections of the museums of Copenhagen, Stockholm, London and Kew, there was not a single *D. octopetala* from this great area. First further south-westward, in the Rocky Mountains and Alaska, this species again appears.

The great difficulty of detecting sharply-defined characters for the distingushing of these two specimens, is clearly to be seen from literature. Authors who only have seen *D. integrifolia* in western Greenland, or know it from specimens from that country, are not in doubt about its being a good species, but in floristic works about regions where both are found, the author either puts *D. integrifolia* as a sub-species under *D. octopetala,* or he asserts his opinion that the former is a good species without however being able to give a clear exposition of the differences. HARTZ, Fan. o. Karkr., p. 320, who has devoted special attention to the *Dryas*-forms of north-east Greenland, DUSÉN, Gefässpfl. Ostgrönl., p. 13, KOLDERUP ROSENVINGE, 2 Till., p. 654, for instance, consider it as a sub-species, whereas HOOKER, l. c. I, p. 174, NATHORST, N. W. Grönl., p. 24, KJELLMAN, As. Beringss. Fan., p. 527, and others, look upon it as a separate species. I must decidedly join with the latter, even if I must admit that the differences between the two species are only relative.

In its most typical form, *D. integrifolia* has leaves with teeth only at the nether part of each edge, and entire for the rest; also leaves, quite without teeth, are found, but besides also such as are dentate along the whole margin. The teeth are however mostly smaller than in *D. octopetala* and, as a rule, more pointed. The strongly involuted margin of the leaves is indeed characteristic of *D. integrifolia,* but in especially shady localities, such as between great boulders, or in clefts of rock, etc., forms with entirely flat leaves are also often found, and as these are besides mostly stronger dentate, the resemblance to *D. octopetala* becomes rather great, and the specimens are easily taken for that plant, as HART and NATHORST have done. On the other hand, there are also *D. octopetala*-forms with leaves as narrowly involuted as in the typical *D. integrifolia;* such I have seen, for instance, from Novaja Semlja, collected by TH. HOLM. Much more usable is another character, which is also observed by HOOKER (l. c., I, p. 174), viz., that the veins in *D. octopetala* are distinctly conspicuous on both sides of the leaves. The upper surface then gets a certain corrugated aspect and becomes lustreless, whereas in *D. integrifolia,* where they are only a little or not at all

visible, the surface is more or less shiny, bright and smooth. That a denser covering of black glandular hairs (especially on the scape and sepals) should characterize *D. octopetala* in distinction to *D. integrifolia*, as HOOKER (l. c.) and ROSENVINGE (l. c.) intimate, hardly holds true. Among the Danish Greenland specimens in the Copenhagen herbarium, there are, besides those from Kingigtok at the Vaigat, which the latter author mentions, many more that have densely glandular scapes and sepals. Also some of the specimens which I collected at Egedesminde and Godhavn have a rather dense glandular covering, and still more is this the case with specimens from Foulke Fjord, and with most Ellesmereland specimens. When PURSH (l. c., p. 350), says that the flowers are only half as large as in *D. octopetala*, this must have been accidentally the case with the specimens after which he has made his description. The flowers of *D. integrifolia* are not really so small, even if they never become so large as the biggest ones of *D. octopetala*, and they are mostly a little smaller than the medium size of the flowers of the latter species. Besides they are not so purely white, but rather often have a faint touch of yellow.

It appears from the preceding, that it is a rather difficult task to make a distinction between certain forms of both species in districts where both grow. But such common areas are restricted to the border-regions of the two species, and the principal foundation for the distinguishing of *D. integrifolia* as a separate species lies, in my opinion, apart from its having proved constant in cultivation (HOOKER, l. c.), in its geographical distribution. To a plantform, which has a great continual area of distribution, where it totally excludes another allied one, which on the other hand, is the ruling one in other equally wide tracts with similar conditions of life, I must, for my part, concede the right of being looked upon as a good species, even if the morphological characters are not so very distinct.

NATHORST, l. c., p. 24, also has a *D. octopetala* f. *intermedia*, which he looks upon as a connecting form between the two species, or perhaps a hybrid. Specimens of it seen in the State Museum at Stockholm, have proved to belong to a broad-leaved and dentate form of *D. integrifolia*. I have seen plants that could be reckoned as this form in several localities and they are also represented in my collections (f. i. n. 4218), as well as such as could easily be taken for *D. octopetala* (f. i. n. 2345, found in deep shade under a protruding rock). However I also found another variety which seems to deserve a name:

Var. *canescens* n. var., is characterised by a dense tomentose covering also of the upper surface of the leaves, which even in the old leaves is almost as grayish-white in colour, as the nether one. It forms a parallel to the varieties *argentea*, BLYTT, and *hirsuta*, HARTZ, of *D. octopetala*.

D. integrifolia is one of the three most common plants in Ellesmereland, and is absent from very few places where there is any higher vegetation at all. It also makes only small demands on the nature of the soil, and even if it is most abundant and vigorous in the archaean districts, it can also grow on localities so poor as plains of limestone debris, if only the water supply is not too scarce. Swampy ground it cannot bear, and consequently it is limited to the top of bigger knolls, where it grows out into the bogs. It is one of the first species to come into flower (about the middle of June or even earlier), and fruits abundantly.

Occurrence. Northern coast: Cape Joseph Henry and Floeberg Beach, HART(!). Grinnell Land: Discovery Harbour, HART(!), GREELY; further as it seems at every station visited by the NARES expedition. Very common in Hayes Sound and the neighbourhood of Fram Harbour (specimens 649, 1081, 1411, 264, 1250). South coast, common (specimens: 1619, 2168, 2345, 3590, 3951, 4218). Western coast, only seen at Lands End, between Eidsfjord and Baumann Fjord, Coal Bay, and brought home by BAY from Bay Fjord (480), but doubt less common also here.

The var. *canescens* in dry places among the type: Hayes Sound: Skräling Island in Alexandra Fjord (1376); western valley in Fram Fjord (1884), above the anchorage in Harbour Fjord (2572).

Distribution: North-eastern Greenland, rare, in company with *D. octopetala*, West Greenland from Lockwood Island, 83° 24′ down to the south, Arctic American Archepelago, Arctic America, Labrador, New Foundland, Anticosti, White Mountains of New Hampshire(?), Rocky Mountains down to 52°, Alaska, St. Lawrence Island, Land of the Chukches. *D. octopetala* on the other hand, is spread in the mountains of Europe, in Arctic Russia, Novaja Semlja and Spitsbergen; in Asia, in the arctic parts as well as in the alpine region of the mountains, everywhere alone. In the Bering Sea region, in Alaska and the Rocky Mountains, but probably not in Arctic and Eastern America, it meets *D. integrifolia*, as is also the case in North East Greenland, where it again seems to have reached by way of Scotland, Faeroes, and Iceland, where it is still found in the higher mountains. Thus, *D. octopetala* has a still wider range where no *D. integrifolia* is found.

Potentilla pulchella, R. Br.

P. pulchella, Rob. Brown, List of pl., 1819, et Chlor. Melv.; Lehmann, Mon. Potent., Suppl. I, et Revis. Potent; Rydberg, Mon. Amer. Potent.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Simmons, Prel. Rep. et Bot. Arb.; Hooker, Fl. Bor. Amer.; Andersson & Hesselman, Spetsb. kärlv.; *P. nivea* var. *pulchella*, Durand, Enum. pl. Smith S.; *P. nivea*, Hart, Bot. Br. Pol. Exp., ex p.; *P. sericea* var. *dasyphylla*, Trautvetter, Consp. Fl. Nov. Seml.; Kjellman & Lundström, Fan. Nov. Seml.; non Ledebour, Ic. pl. Fl. Ross., Fl. Alt., Fl. Ross.; *P. Sommerfelti*, Lehmann, Nov. Stirp. Pug. IX et Revis. Potent.; Lange, l. c.; Rydberg, l. c.

Fig. Lehmann, Mon. Potent., Suppl. I, T. 7, fig. 1; Fl. Dan., T. 2234; Rydberg, l. c., T. 36, fig. 6.

The species in question, is first named by Rob. Brown without description, but in Chlor. Melv. he gives some notes about its characters that are not, however, very satisfying, Perhaps it could be questioned if he has really had the species in view, which has since been understood by this name, the more so as the figure of Lehmann, l. c., who has perhaps had an opportunity of seeing the original specimens, is not quite so good as are his figures generally. Lehmann's description, however, is rather clear and satisfying. So too, the figure of Rydberg, l. c., is not of the best. I think it must be taken for granted, that Rob. Brown has really used the name for the species here in question, the more so, as he has in Chlor. Melv. besides it, also *P. nivea* from the same district; but there are, in the London collections, no original specimens from Ross's first voyage, and the specimens under the name of *P. pulchella* from Melville Island, that I have seen, are really *P. Vahliana*, to which, however, the description does not apply. At all events, the name *P. pulchella* is to be upheld, even if Lehmann is to be quoted as author instead of Rob. Brown.

P. pulchella is one of the most characteristic and easily distinguished among the arctic *Potentillae*, but notwithstanding this, it has not escaped the fate of being confounded with other species: generally, I think, forms having only one pair of leaflets have been the cause of mistakes, as they can bear a certain resemblance to the varieties of *P. nivea*, that have narrow and deeply incised leaflets, such as are most common, for instance in Greenland (cf. Wulff, Bot. Beob. Spitzb., p. 104—106). But that it "goes over" into *P. nivea* in Spitsbergen, as Nathorst (Veg. Spetsb. vestk., p. 111) says, and Wulff quotes, I cannot find. Among the whole of the great collection of specimens of *P. nivea* in the Copenhagen herbarium, there is not a single one, that I could think of referring to *P. pulchella*, as little as there could, on

the other hand, be a question of referring any of the specimens lying under *P. pulchella* to the former species. Also those specimens from WULFF's own collection that I have seen, I could easily place under one of the two species. As for some of his figures (l. c., T. 4), I think there must be a mistake; the figures 14 and 15, can hardly belong to any but *P. pulchella*, unless perhaps there exists another species in Spitsbergen, viz. *P. rubricaulis*, LEHM.; to that I shall return later.

From the other Ellesmereland species, *P. pulchella* is clearly distinguished by its distinctly smaller flowers, whose petals are at most, of the length of the sepals. It is this character also which immediately shows that TRAUTVETTER, Consp. Fl. Nov. Seml., p. 65, is entirely wrong in using the name *P. sericea*, L. var. *dasyphylla*, (BUNGE) LEDEB., for it. As NATHORST, Nya bidr., p. 12, remarks, the Novaja Semlja plant is very like that of Spitsbergen; indeed it differs somewhat in the size of the flowers, but they are not those of the real *P. sericea* or its var. *dasyphylla* (*P. dasyphylla*, BUNGE in LEDEBOUR, Fl. Alt.). Indeed it is curious enough that an American species such as *P. pulchella*, should grow in Spitsbergen and Novaja Semlja, and should not be found in the adjacent parts of Siberia, but I think it may still be found there. At least, the explanation is not to be found in that direction, where TRAUTVETTER and NATHORST have sought it, and the Spitsbergen-Novaja Semlja plant is doubtless *P. pulchella*, as I have had the opportunity of ascertaining by examination of specimens. The real *P. sericea* and also BUNGE's species, have flowers with large and broad petals, not the short ones of *P. pulchella* which are so narrow as not to touch each other with the margin. Also in comparing with the figure 331 in LEDEBOUR, Ic. pl. Fl. Ross., representing the species *dasyphylla* of BUNGE, one is unable to understand how this can have been referred to the plant from Novaja Semlja, as it represents a *Potentilla* with large flowers of a dark yellow, with assurgent stems and leaves with several pairs of of longciliate leaflets, that do not seem to be very hairy over the rest. One arrives at the same result in studying the description in LEDEBOUR, Fl. Alt., and as I have also seen original specimens of BUNGE in the Copenhagen herbarium, I am quite certain that the Novaja Semlja plant has nothing to do with his species, but must be referred to the arctic *P. pulchella*, perhaps as a separate variety, with larger flowers than that in America-Greenland.

I have also to mention another form which I have found, if not in its most extreme development, viz., the so-called *P. Sommerfelti*, LEHMANN, Nov. Stirp. Pug. IX (Fig. Revis. Potent., T. 10, fig. 2). I have

seen a specimen of this in the Copenhagen herbarium, collected in Spitsbergen by TH. FRIES and determined as *P. pulchella*, but afterwards referred by RYDBERG to *P. Sommerfelti*. That it is what FRIES took it for, a small, slender and almost glabrous specimen of *P. pulchella*, is obvious. The principal character which should separate *P. Sommerfelti* from *P. pulchella* is, according to RYDBERG, l. c., p. 91, that the terminal leaflet should be petiolate in the former, but sessile in the latter. But this character is worthless, as many specimens of *P. pulchella*, and especially of the large and luxuriant *β elatior*, LANGE, have long petiolate terminal leaflet, among them also some revised by RYDBERG himself. When it is further observed, that LEHMANN has originally described it (Pug. IX) on specimens from "terris borealibus — — — ni fallor a cl. KEILHAVIO lectis", and that later he has quoted VAHL and HOLBÖLL as collectors, without mentioning anything more about its home (Revis. Potent., p. 37), as well as that it is never found again in Greenland, and that it has been regarded in Spitsbergen of old, as a mere form of *P. pulchella* (NATHORST, Nya bidr., does not mention it), one may easily understand, that it cannot here be the question of any distinct species. Consequently, it is astonishing to find it treated as such, in a monograph of the genus. In Ellesmereland, I mostly saw *P. pulchella* in clayey plains with open vegetation, sometimes also in the rich slopes of rookeries etc. It begins to flower about the beginning of July, and fruits abundantly.

Occurrence. North coast: Floeberg Beach (!), Dumbell Harbour (!) Grinnell Land: Discovery Harbour (!), (GREELY); probably in other localities southward along the coast. Hayes Sound district, sparingly: interior of Beitstad Fjord (489); Fram Harbour (659); Cocked Hat Island (1267). South coast, scarce but for the Goose Fjord, where it grew in most clay plains: Fram Fjord (1638), Muskox Fjord (2118); Goose Fjord localities: Gull Cove (rookery, 2895), Castle Rock (3964), Yellow Hill (3579, 3596), Midday Knoll (4215), east of 4th quarters (3489), great valley at the bottom (3268), Gallows Point (2990). West coast: Lands End, between Eidsfjord and Baumann Fjord, Coal Bay.

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Alaska, East Siberia, Wrangel Land, Novaja Semlja, Spitsbergen.

Potentilla rubricaulis, Lehm.

P. rubricaulis, Lehmann, Nov. Stirp. Pug. IX, 1851, et Revis. Potent.; Rydberg, Mon. Amer. Potent.; Hooker, Fl. Bor. Amer.; *P. aff. (nivea* vel) *rubricaulis*, Ostenfeld, Flow. pl. Cape York; *P. nivea* var., Nathorst, N. W. Grönl.; *P. nivea* var. *subquinata*, Greely, Rep. (?), non Lange; *P. pulchella* f. *elatior*, Dusén, Gefässpfl. Ostgrönl.; *P. pulchella*, Nathorst, N. W. Grönl. (?); Kruuse, List E. Greenl., ex p.; *P. nivea*, auct. ?, non Linnaeus.
Fig. Lehmann, Revis. Potent., T. 30; Rydberg l. c., T. 40, fig. 1—4; Tab. nostra 5.

During my stay in Ellesmereland, I always regarded the species here in question, as *P. nivea*, L., and that variety of it, which is called *subquinata* by Lange; and it was after closer examination and comparison with other specimens, and study of literature, that I came at last to the conclusion that it must be referred to the species of Lehmann, which seems to have been very little noticed by later writers. As shown in the synonymic, some certainly have taken it for a form of *P. nivea*, and probably that is the case also with many others, although it is impossible, without having the authentic specimens at hand, to say anything certain about it. Thus, I cannot but believe, that it forms part of the variable *P. nivea* of Hart, Bot. Br. Pol. Exp., probably also of the plant under the same name mentioned by Greely, Rep., although I have seen no *P. rubricaulis* collected by either of them. The names under which it may perhaps further hide are: *P. nivea* var. *pentaphylla*, Lehm., var. *subquinata*, Lange, var. *altaica*, Rydb. (not *P. altaica*, Bunge), *P. quinquefolia*, Rydb., always however, confounded with forms of *P. nivea*. I therefore think it not out of place here also to devote some attention to an examination of what ought rightly to be meant by those names, notwithstandig the probable non-existence of those plants in Ellesmereland.

At first, however, the description of *P. rubricaulis* in Lehmann, Revis. Potent., p. 68, may be quoted. It runs as follows:

"P. caulibus e basi adscendente erectis, plurifloris, petiolisque pubescentibus; foliis infimis bijugis, supra glabriusculis subtus niveo-tomentosis; foliolis infimis multo minoribus subcuneiformibus profunde tri — quinquefidis, reliquis oblongis pinnatifidis; segmentis subaequalibus oblongo-lanceolatis acutis integerrimis subfalcatis; floribus paniculatis sepalis acutiusculis, externis oblongo-linearibus; reliquis ovato-lanceolatis; petalis obtuse emarginatis fere obcordatis calycem paullo superantibus". Further be adds: "In Habitus gleicht diese Art gar sehr der *P. nivea* var. *pentaphylla*, bei welcher aber die Blätter niemals gefiedert sind.".

The description of RYDBERG (l. c., p. 101—102) is, on the whole, well in accord with this, the small differences are probably due to the greater material which he has had at his disposition. He says, for instance: — "Leaves pinnate of 2—3 approximate pairs and a sessile terminal leaflet, silky above, more or less white-tomentose beneath", and further "Petals obcordate, a third exeding the sepals".

My specimens accord very well both with these descriptions and with the figures quoted. The principal difference lies in the prevalence of 3-digitate leaves, and in the reduction of the lower leaflets, if such are developed. There is, however, a continuous transition between the forms on the basis of which the original description is made (LEHMANN's material was collected at Great Bear Lake by RICHARDSON, and that of RYDBERG still further to the south), and the most reduced arctic forms with only 3-digitate leaves, such as are found on open gravel soil. Where *P. rubricaulis* grew in rookeries, or other places with a richer soil, it always showed rudiments of at least one lower pair of leaflets, even if these basal leaflets were very small. I have never seen really 5-digitate leaves in it. In the Nat. Hist. Mus. there were several specimens collected by RICHARDSON, perhaps from the original locality, and at Kew also from the arctic coast and from Mercy Bay, Banks Land, leg. MIERTSCHING. The RICHARDSON-specimens especially, were larger and had larger and more deeply incised leaves than my Ellesmereland-specimens, but they only had two pairs of leaflets (or even one only) and the basal ones are at least somewhat smaller than the upper ones. The difference between this form and the arctic one is consequently not greater than might be expected. There may, however, be reason for distinguishing the northern form as a separate variety: var. *arctica*, n. var., characterised by low growth; mostly 3-digitate leaves, or by very small basal leaflets, furnished only with one or a few feeble teeth.

P. rubricaulis, and especially var. *arctica*, very much resemble *P. nivea* in habit; there can also be said to exist certain points of likeness to *P. pulchella*. It might therefore perhaps, be suspected of being a hybrid between the two last-named species, or perhaps that it had been overlooked in Greenland and Spitsbergen: it might thus have been the cause of the opinion quoted from NATHORST and WULFF (cf. under *P. pulchella*). *P. rubricaulis*, however, is clearly distinct from *P. pulchella* in its much larger flowers, broader and darker petals, many-flowered inflorescence, assurgent or erect stems, and in its broader, less deeply incised leaflets. One fact among others which decidedly proclaims against its being a hybrid is, that it is much more common within the

area here in question than *P. pulchella* while *P. nivea* seems to be entirely lacking. As to its possible occurrence in Spitsbergen, I can only say that I have seen no specimens from that country; it also seems improbable that it could have found its way thither as it is never found elsewhere on the Asiatic-European side of the arctic region. From Greenland I have seen specimens from Cape Mary, Clavering Island (leg. DUSÉN, cf. synonyms); further, I have myself found it in Foulke Fjord, and it is collected in Wolstenholme Sound by BALLE (cf. OSTENFELD, l. c.) and by NATHORST at Ivsugigsok. From localities further south, I have only seen two specimens, that seem to belong to it. They are in the Copenhagen herbarium, and are both collected at Umanak in Northern Danish Greenland by J. VAHL. One is determined as *P. nivea* and the other as *P. subquinata*, (LANGE) RYDB., by RYDBERG who has inspected the arctic *Potentillae* of the Copenhagen collection. They are entirely identical (parts of the same plant?) and are the only ones in the great collection from Danish Greenland, whose leaves show a tendency to become pinnate. In other respects, they resemble *P. nivea* very much, and consequently, *P. rubricaulis* may easily have been overlooked in the northernmost colonial districts. A strict search for it in those regions must, therefore, be recommended. Together with the two specimens mentioned, there lay a great many of *P. nivea* with 5-digitate laves, both under that name and under var. *altaica* and *P. subquinata*, (LANGE) RYDB.

In connection with the forms of *P. nivea*, found in Foulke Fjord, I shall have to come back to them later, but still I think it better to say a little about the names that RYDBERG l. c., has for the different varieties of the multiform *P. nivea*. WULFF, l. c., p. 105, has already pointed out what he looks upon as a fault in RYDBERG's monograph, viz., that this author has united the var. *subquinata* of LANGE with the var. *pinnatifida* of LEHMANN. This however may, perhaps, be admitted, as it is impossible to keep apart all the varieties that LEHMANN has distinguished under *P. nivea* (in Revis. Potent. 12 besides the principal form), and as the variety of LANGE must doubtless be the same as LEHMANN's var. *pentaphylla*, that together with var. *pinnatifida* is characterised by partly 5-digitate, deeply incised leaflets. Still there is a mistake, for *P. altaica*, BUNGE in LEDBOUR, Fl. Alt., p. 212, is quoted as synonymous to the latter variety. This error is due to LEHMANN himself (Pug. IX, p. 68), and has been repeated by later authors. The figure of *P. altaica* in LEDEBOUR, Ic. pl. Fl. Ross., T. 329, does not indeed give much guidance, as little indeed as does the

description in the same work, but from the description in the Fl. Alt., it is evident, that here there is no question of any form of *P. nivea.* As I have had the opportunity of seeing original specimens of BUNGE's plant in the Copenhagen herbarium, I can affirm at least, that it does not belong to *P. nivea.* In the Index Kewensis, it is referred to *P. multifida,* L., where its right place seems rather to be. As the name *P. nivea* var. *pinnatifida* seems only to be used by LEHMANN for the plant of BUNGE (he only has one locality for it in Revis. Potent., p. 169) it is out of the question, and there is the choice between var. *pentaphylla,* LEHM., and var. *subquinata,* LANGE. As the former is the elder, it must be upheld, there being not the slightest cause to look upon it as a species as RYDBERG has done, probably because he has had no opportunity of studying the plant from nature.

Rather might it be justifiable to distinguish all the arctic forms with deeply incised leaflets, from the typical *P. nivea,* which has them more rounded and feebler dentate. I have, however, had too little opportunity of studying them from nature, to be able to give any definite opinion about it. In a collection of herbarium specimens, it appears as if a continual series of intermediate forms existed. RYDBERG has, however, not only (l. c.) established a new species *P. quinquefolia* for the plant here in question, but he has also put it in a separate group, *Subjugae,* together with *P. subjuga,* RYDB. Between the two species, there is not a single character in common, unless the "pinnate tendency" (RYDBERG, Mon. Amer. Potent., p. 37) is regarded as such, which is said to appear therein that the terminal leaflet is petiolate. This characteristic, however, appears very often in the principal form of the *P. nivea,* and there can be no doubt but that the group *Subjugae* is merely artificial, and has nothing to do with affinity. Perhaps RYDBERG has seen arctic specimens of *P. rubricaulis,* and has referred them to his *P. subquinata,* (LANGE) RYDB., as later he has called it (Furth. Stud. Potent.). That would perhaps account for his arrangement.

P. rubricaulis var. *arctica* in Ellesmereland is found generally in rookeries and vegetation-covered slopes, where it is loosely tufted and thriving, whereas when it grows in open gravel- or clay-plains, it becomes stunted and very densely tufted, so as to be rather like *P. Vahliana* in habit. It begins to flower at the end of July, and is flowering all through the summer, besides bearing fruit abundantly.

Occurrence. Grinnell Land (?). Hayes Sound and Fram Harbour district: Beitstad Fjord, Skräling Island in Alexandra Fjord (1373), Fram

Harbour (1085, 1880). South coast: Fram Fjord (1630, 1660); Harbour Fjord, "green patch" near the anchorage (2151), Seagull Rock (2599, 2650); Goose Fjord, Falkon Cliff (2882, 3771), Gallows Point.

Distribution: Northeastern and Northwestern Greenland (cf. above), Arctic American Archipelago (only a few specimens seen at Kew, but probably spread all over the islands), Arctic America, in the continent down in the temperate parts and Rocky Mountains to Alberta, Wyoming and Colorado.

Potentilla anserina, L.

This species is recorded by HART, Bot. Br. Pol. Exp., from Cape Sabine (Bedford Pim Island), but there are no specimens in the Nat. Hist. Museums or at Kew, to confirm his statement. He has also recorded it from Foulke Fjord and from Pröven in Greenland. Now it is lacking in the list of the plants from the Hayes expedition, which wintered at Port Foulke, and, in the Danish part of the coast no other collector has found it north of the Disco-district, and therefore I think one is well justified in excluding it from the Ellesmereland flora. What HART can have taken for *P. anserina* is not easily decided, but most probably, it must have been one of the preceding species.

Potentilla nivea, L.

This species is recorded by HART, Bot. Br. Pol. Exp., from all his localities from Danish Greenland up to the north coast of Ellesmereland as well as by GREELY, Rep. Indeed it is not to be denied, that it could perhaps grow there, as it is to be found in Greenland, at least as far north as Foulke Fjord, and it seems also to be spread in the Arctic Archipelago. There are, however, no specimens to be found that would give the necessary confirmation to the statement of HART, which is the more unreliable, as he has thrown together both *P. Vahliana*, LEHM. and *P. pulchella*, R. BR. with it, which shows, that he has had very little knowledge of these species (cf. under *P. pulchella* and *P. rubricaulis*). In all probability, HART has taken *P. rubricaulis* for *P. nivea*, even if there are no specimens of the former from Ellesmereland in the London collections, but still it may be possible that GREELY, who has recorded *P. nivea* as well as the var. *subquinata*, has also had specimens of the true *P. nivea* in his collection. At all events, all the localities from Hayes Sound and adjacent parts in HART's list are to be excluded.

Potentilla Vahliana, LEHM.

P. Vahliana, LEHMANN, Mon. Potent., 1820, Revis. Potent., Nov. Stirp. Pug. IX; RYDBERG, Mon. Amer. Potent.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HOOKER, Fl. Bor. Amer.; *P. hirsuta*, Fl. Dan., T. 1390; *P. nivea* var. *hirsuta*, DURAND, Enum. pl. Smith S.; *P. nivea*, TORREY & GRAY, Fl. N. Amer.; *P. nivea*, HART, Bot. Br. Pol. Exp., ex p.; *P. Jamesoniana*, GREVILLE, Descr. Pot.

Fig. Fl. Dan., T. 1390; GREVILLE, l. c., T. 20; RYDBERG, l. c., T. 35, fig. 8.; Tab. nostra 4, fig. 1.

This species is very clearly described by LEHMANN (Mon. Potent.), and, as it is very distinct from all other arctic species, it is not easy to understand how it can notwithstanding have been so often confounded with others. HOOKER, l. c., p. 195, says: "Affinis *P. niveae* sed certe species distincta, petalis reniformibus facile ab omnibus *P. niveae* formis discernenda": but, notwithstanding he adds: "but I possess many specimens of a *Potentilla* from the higher summits of the Rocky Mountains and from the Arctic Regions, which appear to be quite intermediate between *P. Vahliana* and *P. nivea*". There are, however, no such specimens to be found in the Kew collections, where the Hookerian herbarium is now preserved. Several authors have since put it as a variety under *P. nivea*, and MEEHAN (Contr. Greenl.) has even taken it for *P. pulchella*, as is seen by the corrections of his paper made by TH. HOLM (Contr. Fl. Greenl.). Perhaps also the *P. pulchella* of DURAND, Pl. Kan., is to be referred to this species, as far as can be judged from his description. But he has also *P. nivea* γ, TORR. & GRAY, with *P. Vahliana*, LEHM. as a synonym.

The confusion is probably due in great part to the very bad figure in the Flora Danica, that could, but for the flower, which is decidedly that of *P. Vahliana*, sooner represent any other species than *P. Vahliana*.

Even in a sterile state, the species is very easily distinguished already from afar; its large, densely-packed, hemispherically-tufted individuals immediately catching the eye, as they stand spread over the ground, sometimes with only the naked earth between them. The shape of the leaves also is rather characteristic, but still the flower gives the best distinguishing marks, by its size and its broadly obcordate petals (they are broader than they are long), which are of a beautiful yellow colour, with a saffron-coloured stain.

It is mostly found in clay- or gravel-plains, where its strong taproot goes deep down. Its flowering time seems to be rather late; I have never seen it in bloome before the beginning of July; in the un-

favorable year 1900, it was first seen on July 31st. But the flowering is very soon ended and the fruit seems to mature regularly.

Occurrence. Grinnell Land, Discovery Harbour, HART (sub *P. nivea*!). Totally lacking in the Hayes Sound district as well as in the eastern part of the south coast, but common and abundant in the interior of the Goose Fjord, for instance: Ptarmigan Gorge (3333, 3392), Gallows Point (3000), Midday Knoll (3650), Wolf Valley.

Distribution: West Greenland (northern part), Arctic American Archipelago, Arctic America, Hudson Bay region, Rocky Mountains.

Potentilla emarginata, PURSH.

P. emarginata, PURSH, Fl. Amer. sept., 1814; LEHMANN, Mon. Potent., et Revis. Potent.; RYDBERG, Mon. Amer. Potent., et Furth. Stud. Potent.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.: non *P. emarginata*, Desf.; *P. nana*, WILLDENOW, in SCHLECHTENDAL, Uebers. Willd. Potent.; LEHMANN, ll. cc.; RYDBERG, Mon. Amer. Potent.; HOOKER, l. c.; BRITTON & BROWN, l. c.; LEDEBOUR, Fl. Ross.; *P. fragiformis* var. *parviflora*, TRAUTVETTER, Consp. Fl. Nov. Seml.; KJELLMAN, in Vegaexp.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; NATHORST, N. W. Grönland; *P. fragiformis*, RYDBERG, Mon. Amer. Potent., non (WILLD.) SCHLECHT.; *P. grandiflora* var. *parviflora*, TRAUTVETTER, Pl. Sib. bor., et Fl. rip. Kolym.; *P. frigida*, HART, Bot. Br. Pol. Exp., non VILLARS; (*P. maculata*, GREELY, Rep. (?), non POURRET).

Fig. LEHMANN, Mon. Potent., T. 17; Fl. Dan., T. 2291; RYDBEBG, Mon. Amer. Potent., T. 32, fig. 1—5.

PURSH has described (l. c., I, p. 353) *P. emarginata* in such a manner, that one can be tolerably certain which form he meant. Later his description has been made more precise by other authors, such as LEHMANN and RYDBERG, who have also given figures. I am indeed in no doubt about my plant being identical with that of KOHLMEISTER, collected in Labrador, on which PURSH founded his species, but still it remains to be seen if there are no objections to the name. It is a fact that it is used already 1804 for quite another plant by DESFONTAINES (Tableau de l'Ecole de Botanique, p. 177), but without a description. The name of DESFONTAINES seems never to have been used, and PURSH was at liberty to avail himself of the same specific name (cf. also LEHMANN, Mon. Potent., p. 175).

Previously, however, WILLDENOW had, in his herbarium, distinguished the plant in question as *P. nana*, and SCHLECHTENDAL kept this name when, in Gesellschaft naturforschender Freunde zu Berlin, he gave an account of some *Potentillae* in the herbarium WILLDENOW. The above-quoted paper of SCHLECHTENDAL is published in volume 7 of Mag.

d. Ges. naturf. Fr. for the year 1813, but the title-page gives the year of publication as 1816. Even if some part of the volume was printed earlier, that can hardly have been the case with SCHLECHTENDAL's paper, which is among the last in the volume, and consequently must be of later date than PURSH's Flora, the more so as the 6th volume of the same periodical (for 1812), is published in 1814, according to the title-page. From this it follows, that one is obliged, in looking upon *P. emarginata*, PURSH, and *P. nana*, SCHLECHT., as synonyms (which, I think, is inevitable), to use the former name.

As to the above-quoted name of TRAUTVETTER, it must firstly be mentioned that *P. fragiformis* is also a herbarium name of WILLDENOW, which SCHLECHTENDAL has published in the same paper. The name *P. fragiformis* is indeed to be upheld, but for quite another species, which has its principal distribution in East Asia and the Bering Sea region. It differs from *P. emarginata* in its broader and more rounded, less deeply incised leaflets, whose teeth are less acute. The whole plant is larger and coarser, leafy up even to the considerably richer inflorescence. Generally it is less hairy than *P. emarginata* or at least it has not the long projecting hairs of the stem so prominent as in the latter species. *P. fragiformis* can rightly be said to bear a certain resemblance to a *Fragaria*, which can hardly be said of *P. emarginata*. The figure of LEHMANN (Mon. Potent., T. 15) is rather good, even if it represents a somewhat hairy form; but the figure of RYDBERG (Mon. Amer. Potent., T. 31, fig. 1) cannot have been designed from any specimen of the true plant of SCHLECHTENDAL, as it has much smaller flowers and more narrow petals. This also accounts for the absence of any distinguishing marks in the description of the three species in RYDBERG's monograph. His material for the description of *P. fragiformis*, partly at least, has belonged to *P. emarginata*, for he gives Cape York in Greenland among the places where it is found. He also mentions Alaska, where both species are found, but probably his specimens from there also were *P. emarginata*. Specimens of the real *P. fragiformis* I have seen, especially from the Aleutian and other Islands in the Bering Sea, and also from Western Esquimaux Land (leg. SEEMANN), and from Siberia so far east as Patapodskoje at the Yenissei River (leg. M. BRENNER, $^{25}/_{7}$, 1876). Specimens very well in accordance with these, lay in the Copenhagen herbarium labelled: "Hort. bot. hafn. $^{26}/_{6}$ 61, sem. ex hort. Hamburg". Even if these cultivated specimens are somewhat less hairy than the figure of LEHMANN indicates,

still it is probable, that the seed was taken from a plant which LEHMANN had approved of as *P. fragiformis.*

TRAUTVETTER has here, as in several other cases, done his best to add to the already existing confusion. First be established the name *P. fragiformis* var. *parviflora* for the plant, which had already two specific names (cf. synonyms) and later he transferred it to still another species. About *P. nana,* (WILLD.) SCHLECHT., it must finally be added, that even if it is kept separate from *P. emarginata,* some authors at least have had a suspicion about their identity. HOOKER, for instance, (l. c., I, p. 194) says: "May not this be the *P. emarginata,* PH.?" RYDBERG, who in his monograph kept three different species, has afterwards (Furth. Stud. Potent., p. 180) been forced to admit, that they are only forms of one. The character by which he has distinguished them, the length of the terminal tooth in the leaflets, is quite useless. I think that under some records of *P. nivea, P. emarginata* may also be found hiding. To judge from the synonyms, R. BROWN, Chlor. Melv., p. 19, gives under his *P. nivea* β, and from a specimen collected in Melville Island by SABINE, which lay under *P. nivea* in the Nat. Hist. Mus. herbarium, he has had *P. emarginata* in front of him.

In grass-clad ledges and slopes *P. emarginata* is a rather common plant throughout the whole region visited by me. Its first flowers came rather early, about the middle of June, but flowering specimens could still be found in August. Like all *Potentillae* it fruits abundantly.

Occurrence. Grinnell Land: Shift Rudder Bay and Discovery Harbour (HART). Hayes Sound region, common and plentiful. Specimens from: Cape Viele (861), Skräling Island (1377), Eskimopolis (836), Cape Rutherford (318, 684), Fram Harbour (658, 1083), Cocked Hat Island (1268), Bedford Pim Island (1194, 1259). South coast, less abundant. Specimens from: Fram Fjord (1629); Harbour Fjord, valley on Sir Inglis Peak (2163); Goose Fjord, Gallows Point (2996), surroundings of 3th winterquarters (3183, 3264, 3481), Midday Knoll (3506), 4th winterquarters (3958). West coast: Lands End, and between Eidsfjord and Baumann Fjord.

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Alaska, Islands of the Bering Sea, Arctic and Eastern Siberia, Novaja Semlja, Spitsbergen, Franz Joseph Land.

Potentilla maculata, Pourret.

This species is recorded by Greely from Discovery Harbour. Most probably it is *P. emarginata* that has been mistaken for it, as the latter species is absent from Greely's list. As it is nowhere found in the Arctic Archipelago, and as in Greenland it does not go north of the Disco region on the west coast, it is very improbable that it should grow in Grinnell Land.

Saxifragaceae.

Chrysosplenium alternifolium, L. var. *tetrandrum*, Lund.

Ch. alternifolium-tetrandrum, N. Lund, Beretn. Östfinm., 1846; *Ch. alt.* var. *tetrandrum*, Franchet, Mon. Chrysospl.; Andersson & Hesselman, Spetsb. kärlv.; *Ch. alternifolium*, Hooker, Fl. Bor. Amer., ex p.; Britton & Brown, Ill. Fl., ex p.; Ledebour, Fl. Ross., ex p.; *Ch. tetrandrum*, Fries, Iakt. arkt. växt.; Simmons, Prel. Rep. et Bot. Arb.

Even if certain differences are immediately visible when a typical specimen of the arctic *Ch. tetrandrum* is compared with the *Ch. alternifolium* of temperate regions, they nevertheless are united by intermediate forms, and Franchet, the monographer of the genus, has (l. c., p. 107) put the first-mentioned plant back in its old place as a variety of the latter. Th. M. Fries also, has himself expressed some doubt whether the species established by him could be standing as such (Nov. Seml. veg., p. 37). Warming, who has studied it from a flower-biological point of view, seems most disposed to keep it as a separate species, even though he says (Arkt. Vaext. Biol., p. 4) that it has doubtless sprung from *Ch. alternifolium* as a degraded, and for arctic conditions better adapted form. The principal character, the four stamens, he explains directly from the self-pollination, which again becomes a necessity, because insects for the pollination are so scarce (the right ones are perhaps totally absent?). The other differences between the arctic and the temperate form, the shape of the leaves, the stature, etc., can in a greater material be seen to be continually connected by intermediate forms. As for the more abundant development of creeping stolons, such may be found equally developed in 8-staminate forms from arctic or sub-arctic regions. It also seems quite natural, that such an adaption for vegetative multiplication should take a prominent place,

where circumstances are hardly such as to allow of development of fruit or ripe seed every year.

The specimens in the Nat. Hist. Mus. herbarium are not generally accessible for a closer inspection as they are closely pasted to the paper, some, however, certainly belong to the variety, and as far as may be concluded from habit, that is the case with all specimens from the Archipelago and the arctic part of the continent. Some, however, may have 8 stamens, as certainly some Novaja Semlja plants have, and, perhaps, also some of LUND's own specimens.

My specimens are, mostly at least, 4-staminate, but show an abundant growth. The only locality where I found the plant also was unusually favorable, a small, sheltered slope below a high rock wall with a southern exposure, and richly watered as well as manured from the height above, where the glaucous gull had a nesting place. Here it formed, together with a large *Mnium* sp. and other mosses, a densely matted vegetation. Flowering specimens as well as others with ripe seed in abundance, were found August 8th, 1900 — the only time I found it.

Occurrence. South coast: Seagull Rock in the Harbour Fjord (2600). Its occurring here is of special interest, as it had not reachedGreenland[1].

Distribution. I must take both forms together, as sufficiently detailed statements about the area of the variety are not at hand; FRANCHET, l. c., has even omitted the original locality, the Finmark, among the localities for it, which he records. Therefore I mark with an * the countries in which its occurrence is noted, or from whence I have seen specimens: *Arctic American Archipelago, *Arctic America, Northern Temperate America, British Columbia, Iowa, *Colorado, *Rocky Mountains, Alaska, *Unalaschka, Pribilof Islands, *St. Lawrence Island, Arctic and Temperate Asia down to the Himalayas and the Caucasus, Northern and Central Europe (*Finmark), *Novaja Semlja, *Spitsbergen.

Saxifraga oppositifolia, L.

S. oppositifolia, LINNAEUS, Sp. plant., 1753; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; LANGE, Consp Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep., et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vega-exp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. LINNÆUS, Fl. Lapp., T. 2, fig. 1; Fl. Dan., T. 34.

This species is the most common one in Ellesmereland, as it is probably everywhere in arctic countries. I have never visited a place

[1] Indeed, there is in the Stockholm herbarium, one specimen labelled "e Groenlandia, ded. VAHL fil., 1842", but that probably is from Spitsbergen.

where it was not found when an excursion was made, and only in the most utterly poor limestone districts it was not immediately found after walking only a few paces on shore. It grows also in nearly every kind of locality, and even if it absent from the most swampy bottom, it can still be found on the top of the higher knolls, where it is a little drier.

It is very variable, both in manner of growing and shoot-system of the individual, as well as in size and colour of the flowers. ANDERSSON & HESSELMAN, l. c., p. 25–26, have distinguished two forms, that differ in their mode of growth, *f. pulvinata* and *f. reptans*. They could also be distinguished in Ellesmereland, but I have not found them so sharply defined as, according to these authors, they must be in Spitsbergen. The same distribution of the forms, which is mentioned from Van Keulen Bay, I have also observed in many places, and I think it is easily explained. The origin of the pulvinate form in depressions, is caused directly by the influence of outward conditions. *S. oppositifolia*, in fact, is not the only plant which grows thus in such localities. *Cerastium alpinum*, for instance, shows there an equal tendency to form dense tufts, and another densely pulvinate plant from similar localities is *Alsine Rossii*. Most probably this stands in connection with the fact, that such localites, the even clay plains, as well as the depressions in the more undulated fields of the same kind, will, during the melting of the snow, all be inundated by a shallow layer of clay-laden water, which runs very slowly and deposits rather considerable quantities of loam. If *S. oppositifolia* should grow here as usual, prostrate and spread like a mat, it would every year, be covered by a layer of clay, may be thin, which would impede its early development or even kill it. By growing in tufts which reach over the water, it avoids this, but then the forming of tufts naturally necessitates another kind of ramification. The cause for the appearance, also mentioned by the same authors, of large mats in the river beds, where also the bottom is rather little stabile, may perhaps be sought therein, that a high tuft would too easily catch the gravel transported by the fast-running wather and thus be buried. Here the plants become totally submersed during the flood and then probably, the matlike growth is less apt to hold fast the coarse material which is here carried along. Very often, however, the mats of *S. oppositifolia* and other plants growing in such places, are totally covered and killed, or also washed loose and swept away.

S. oppositifolia is called the most arctic of all higher plants and indeed it is found so far north as man has reached on dry ground. It is also one of the first to show signs of life in spring time and

usually the first to flower. Even so far north as Discovery Harbour, it has been found in bloom already on June 1st (1882, Greely). In Fram Harbour, I also saw it flowering, June 1st, 1899, but the following years it came a little later.

Occurrence. Common and abundant all over Ellesmereland (first mentioned from Cape Frazer by Hayes, and in his collection from Gale Point; by Wetherill from Cape Faraday, and also from Weyprecht Island in the Stein collection according to Holm). From the western coast I only have specimens from Bay Fjord (482, leg. Bay) and Braskerud Plain (697, leg. Isachsen), but I also saw it in several places up into Baumann Fjord, and I presume that it is equally common there as to the east. Specimens in the collection: Cape Rutherford (325), Fram Harbour (283, 1094, 1162), Bedford Pim Island (265, 1311), Fram Fjord (1614), Harbour Fjord (2050), Goose Fjord (3275, 3901).

Distribution: Throughout the Arctic Regions and in the higher parts of the temperate, down to New Foundland, Anticosti, Vermont, Wyoming and Oregon, Unalaschka, Alatau, Tibet, Alps, Siebenbürgen, Appenines, Sierra Nevada.

Saxifraga flagellaris, Willd.

S. flagellaris, Willdenow, in Sternberg, Revis. Saxifr., 1810; Engler, Mon. Saxifr.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Brown, Chlor. Melv.; Hooker, Fl. Bor. Amer.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; *S. flag.* var. *setigera*, Engler, Mon. Saxifr.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; *S. setigera*, Pursh, Fl. Amer. sept.

Fig. Sternberg, l. c., T. 6; Fl. Dan., T. 2353; Ledebour, Ic. pl. Fl. Ross., T. 321; Hooker, l. c., 1, T. 87.

When Pursh (l. c., p. 312), 1814, described his species *S. setigera*, he was doubtless quite ignorant of the fact, that the same plant had, four years before, become known from the Caucasus and had been described. Moreover his material must have been very bad, as he has been induced to think that the flowers were white. Other authors soon came to the conclusion that the same plant was meant, but some, for instance Hooker (l. c.) and Engler (l. c., p. 225) have looked upon it as a variety. The last-mentioned author also gives a description of it, which is, however, somewhat different from that of Pursh, who had described it with characters that all, so far as they are correct, apply to the type. The distinguished mark for the variety of Engler: "Calycis laciniae ovatae ad medium usque coalitae. Tubus ovario adhaerens", however, does not hold good for most of my specimens, any more than it does for many

Greenland and Arctic American ones; whereas it can, on the other hand as well be applied to some Spitsbergen and North Asiatic specimens. The characters "caulis subuniflorus" cannot have any deciding value, as naturally a plant gets a smaller number of flowers towards the northern limit of its area, especially when it, as in the present case, seldom or never develops ripe fruit, but spreads by vegetative propagation. Still it is found with three flowers, as far north as Discovery Harbour 81° 42′. The variety of Engler, therefore, is to be cancelled as well as the species of Pursh.

The rosulae of *S. flagellaris* usually get loosened during the winter, when the mother-plant dies after having flowered, and then, as a rule, they attain to flowering in the following summer: the plant thus becomes biennial. I have, however, sometimes seen great, vigorous rosulae that had developed no flower but only flagellae with daughter-rosulae. Such probably live over another winter and flower at the same time as the next generation. I have also seen specimens, where a daughter-plant had arrived at developing a flower, which was however sessile, already in the same year as that in which it was developed. After the flowering, the mother-plant dies and becomes loosened from the ground, but the dried flagellae still hold the daugther-individuals bound fast to it, and so it can easily come to pass, that the whole conplex is torn up (if the young plants are not yet strongly rooted) and driven away over the snow in winter time. This probably is the manner in which the plant usually spreads, as the fruit seems hardly ever to ripen in these parts.

S. flagellaris generally grows in rather wet, sandy or clayey plains, sometimes also among moss, but as a rule, not in a denser vegetation of higher plants. The flowers began to show at the end of June, or beginning of July, and then it flowered until the beginning of the winter.

Occurrence. Northern coast: Floeberg Beach (Hart). Grinnell Land: Shift Rudder Bay and Discovery Harbour (Hart, Greely). East cost, rare, only found at Cape Sabine (Bedford Pim Island) by Hart, by me on the south side of the same island, abundantly in a limited space (1200), and by Hayes at Gale Point (Durand). South coast: Fram Fjord (1659), Muskox Fjord (2144); common in the Goose Fjord, specimens from east side of 3rd winterquarters (2744, 3308), Ptarmigan Gorge (3388). West coast: common at least along the Hell Gate and at Lands End, also found at Nordstrand (leg. Fosheim) and most probably spread further northward as it was found by Schei in Heiberg Land.

Distribution: Northeast and Northwest Greenland, Arctic American Archipelago, Arctic America, Rocky Mountains, Land of the Chukches, Arctic Siberia, Altai and other mountains down to Tibet, Caucasus, Arctic Russia, Novaja Semlja, Spitsbergen.

Saxifraga aizoides, L.

S. aizoides, LINNAEUS, Sp. plant., 1753; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; MEEHAN, Contr. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. Fl. Dan., T. 72.

The Ellesmereland form has entirely glabrous leaves, or, exceptionally they are feebly ciliate. The flowers are purely yellow.

In its only locality, the plant grew in wet clay or gravel on rock ledges, and flowered abundantly when first found, August 3rd, 1900.

Occurrence. South coast, slopes at the Lake Valley (2525), and from there to the "green patch" (2565, 3993) at the anchorage in Harbour Fjord.

Distribution: North-eastern Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, New Foundland, Anticosti, down to Vermont, New York, and Michigan, Rocky Mountains (absent in Asia?), Ural, Arctic Russia, Spitsbergen, Northern Finland and Scandinavia, Mountains of Central Europe and of Great Britain, Iceland.

Saxifraga Hirculus, L.

S. Hirculus, LINNAEUS, Sp. plant., 1753; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; BROWN, Chlor. Melv.; MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; GRÖNLUND, Isl. Fl.; *S. Hirc.* var. *alpina,* LANGE, Consp. Fl. Groenl. (non ENGLER, l. c.?); *S. Hirc. β uniflora,* STERNBERG, l. c.; *S. propinqua,* BROWN, List of pl., ex Chlor. Melv.

Fig. Sv. Bot., T. 625; Fl. Dan., T. 200.

The Ellesmereland form of this plant entirely resembles that from East Greenland, which LANGE has identified with the var. *alpina* of ENGLER, whose description (l. c., p. 124) runs as follows: "Caulis humilis. Folia basalia numerosa, spathulata atque caulina oblonga, margine ciliata. Sepala fere ovata. Petala obovato oblonga". LANGE, however, has altered the discription to: "Humilis (2—3″ longa) condensata et caespitosa, folia latiora quam in forma typica (Fl. Dan. tab. 200!),

subspathulata; petala majora, intense lutea". Thus he gets the description to apply to the Greenland plant, and further he says, that the same form occurs in Iceland, Spitsbergen, Arctic Siberia and Arctic North America, and that, notwithstanding that ENGLER has mentioned his plant only from Sikkim and Tibet, the northern one is also to be referred to it.

As I have not had any opportunity of seeing authentic specimens of ENGLER's variety, I cannot form any decided opinion about its value. At least it seems difficult to define, as both sepals and petals are very variable in shape even in the same flower. However one of his distinguishing marks could perhaps be more usable, viz. the ciliation of the leaves. But this is not mentioned by LANGE, probably because it is entirely wanting in the Greenland and Iceland specimens. Apart from this, at least some of the specimens from Iceland, Spitsbergen, Northern Siberia, etc., in the Copenhagen herbarium, accord rather well with the description of ENGLER, but just one of them, which has most conspicuously rosulate and broad basal leaves, broad sepals and large flowers (from Alatau, BROTHERUS 1896) is by ENGLER himself determined as the typical form. Even if some Sikkim specimens, that I have seen, are rather more in accord with ENGLER's description, I still doubt whether his variety can be upheld, and in each case, the Arctic American-Greenland form must not be referred to it.

It differs from the Iceland—Spitsbergen—Siberian plant as well as from the common European form in its manner of growing in great, loose tufts, formed of numerous upright rhizome-branches, that end either in sterile or floriferous shoots. The leaves are very narrow, or even linear, the flowers rather small. Even if the name of ENGLER must be discarded for this variety, there still exists a name for it, viz., *S. propinqua*, R. BROWN. This indeed from the first is a nomen nudum, but ROB. BROWN has afterwards himself given a short description of it in Chlor. Melv., p. 15, where he has reduced it to a variety of *S. Hirculus*[1]. STERNBERG, l. c., suppl. II, p. 18, indeed has called the plant of BROWN *S. Hirculus β uniflora*, which, however, he had no right whatever to do. If, therefore, the arctic-american form is to be kept separate as a variety which seems rather well founded by the above-mentioned characters that distinguish it from the european and asiatic forms, it must be called *S. Hirculus*, L. var. *propinqua*, (R. BR.).

[1] I have had the opportunity of seeing, in the Nat. Hist. Mus., authentic specimens from Melville Island.

The plant grew in swamps, generally in deep moss. The flowers were seen about the beginning of July.

Occurrence. Only found in the southern coast, where it was fairly common in swamps: Fram Fjord, in several places (1615); Harbour Fjord, Big Valley (2336), Sir Inglis Peak (2450); Muskox Fjord (2118); Goose Fjord, valley at the bottom (3269), Yellow Hill (3724), and many other places. Not found in the west coast, but probably growing there, as SCHEI had it in his Heiberg Land collection.

Distribution: North-eastern Greenland, Arctic American Archipelago (widely distributed), Arctic America, down to Labrador and Saskatchawan, Alaska, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Kamshatka, Temperate Asia down to the Himalayas and Caucasus, Northern and Central Europe, Novaja Semlja, Spitsbergen, mountains of Great Britain, Iceland.

Saxifraga tricuspidata, ROTTB.

S. tricuspidata, ROTTBÖLL, Pl. Isl. Grönl., 1770; RETZIUS, Fl. Scand. Prodr.; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; LEDEBOUR, Fl. Ross.; *S. Chamissoi*, STERNBERG, l. c. suppl.

Fig. ROTTBÖLL, l. c., T. 6, fig. 21; Fl. Dan., T. 976.

Some american botanists (GRAY, Bot. N. Un. St., p. 143; BRITTON & BROWN, l. c., II, p. 172) give the colour of the flower as yellow, but as HART, l. c., p. 32, observes, this does not hold true. The petals are either entirely pure white, or more or less dotted with purple or orange stains, but they are never entirely yellow in the living plant. In dried specimens, and especially in badly-preserved ones, they will of course get a yellowish appearance, and the mistake may have arisen from the authors mentioned having had only dried specimens from which to form the description. HOOKER, l. c., I, p. 254, has "petalis obovato-oblongis albis immaculatis". BRITTON & BROWN also are mistaken in recording the plant from "Arctic Europe". Probably this is due to their quoting RETZIUS as author instead of ROTTBÖLL; indeed it is rather misleading, that this merely american plant has been entered in the above-quoted work of RETZIUS.

The plant is generally found in gravelly localities, where, as also in the dense vegetation of slopes, it can become large, vigorous, long-branched, and forms wide-spread mats. In rock ledges and in very dry places it becomes small and reduced, and sometimes gets entire

leaves having only one spine at the tip (f. *integrifolia*, VAN HÖFFEN ?), thus getting a certain resemblance to *S. bronchialis*, L. Another stunted form the *S. Chamissoi*, STERNB. represents, as far as can be judged from the figure (l. c., T. 10). The flowers were found after the middle of June, and than its flowering time continued until the frost set in. The flowers often remained frozen all through the whole winter, so as to give the plant the appearance, in early spring, of having already begun to flower; but when the blossoms thawed they soon faded.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: Discovery Harbour (HART, GREELY). Hayes Sound region: rather common; specimens from: Skräling Island in Alexandra Fjord (1387), Cape Viele (959), Cape Rutherford (326), Bedford Pim Island (1217). South coast: common in the archaean district, specimens from Fram Fjord (1655), Harbour Fjord (1863, 2566); more rare in the limestone region, for instance, South Cape, Muskox Fjord; more common again in the south western sandstone district, especially in the Goose Fjord (3494). West coast: Braskerud Plain (703, leg. ISACHSEN).

Distribution: North-eastern Greenland (rare), North-western Greenland, Arctic American Archipelago, Arctic America and down to Labrador, New Foundland, Lake Superior, Rocky Mountains, and Alaska.

Saxifraga nivalis, L.

S. nivalis, LINNAEUS, Sp. plant., 1753; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp., ex p.; GREELY, Rep.; SIMMONS, Prel. Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.

Fig. Sv. Bot., T. 728; Fl. Dan., T. 28.

This species is rather commonly distributed, but rarely abundant. It is rather variable in size, hairiness, etc., and the inflorescence can be either subcapitate or branched, very often there is a stronger branch some way down on the stalk, below the rest of the inflorescence. Besides the typical form, also occurs the variety:

Var. *tenuis*, WAHLENB.

S. nivalis var. *tenuis*, WAHLENBERG, Fl. Lapp., 1812; STERNBERG, l. c.; KJELLMAN, l. c.; LEDEBOUR, l. c.; ANDERSSON & HESSELMAN, l. c.; *S. niv.* var. *tenuior*, WAHLENBERG, Fl. Suec.; LANGE, l. c.

Fig: LINNAEUS, Fl. Lapp., T. 2, fig. 5.

This form which is smaller in all parts than the typical one, and almost glossy glabrous, and which has the few flowers of the inflores-

cence somewhat longer pedicellate than in the type, is spread all over the parts of Ellesmereland visited by me, but rather sparingly. It was generally found in shady, densely moss-covered places. LANGE, l. c., p. 60, quotes *S. pauciflora*, STERNBERG, l. c. suppl. I, p. 6 and T. 4, as a synonym of this variety. But according to the description, this should be rather hairy, which points to the type, where also ENGLER, l. c., p. 145, puts it. But ENGLER has also, l. c., p. 147, established a var. *ramosa*, which seems according to the description: "Caulis apicem versus ramosus, ramis multifloris, floribus sessilibus, plus minusve glomeratis", soonest to comprehend the largest and most flourishing forms of *S. nivalis* (for instance, specimens n. 1149 from Cape Rutherford). Nevertheless the older name of WAHLENBERG is cited as a synonym of this variety, as well as the above-quoted figure in LINNAEUS' Fl. Lapp. But as this clearly shows a form with unbranched stalk and pedicellate flowers, which moreover is glabrous, and rather small, viz., combines all the characteristics of the variety of WAHLENBERG, neither quotation is to be referred to the variety of ENGLER.

S. nivalis was generally found in somewhat moist slopes and rock-ledges, the variety with the type or, more often, in shady places. It was most common in the archaean district, less in the limestone tracts, where, however, it could be especially abundant in rookeries. In flower about the beginning of July and with flowers to the beginning of the winter. Fruited richly.

BRITTON & BROWN (l. c., II, p. 174) have the following curious note: "Said to flower beneath the snow". Probably this statement is due to flowers from last year, found preserved under the snow, which have been believed to be developed in the spring before the thawing of the snow.

Occurrence. Grinnell Land, Discovery Harbour (HART! GREELY). Hayes Sound district, common, specimens from: Skräling Island in Alexandra Fjord (1366), Cape Rutherford (308, 1149, *4220), Fram Harbour (1087, *285), Cocked Hat Island (1286), Bedford Pim Island (257, *4219). South coast, rather common; specimens from: Fram Fjord (1616); Harbour Fjord, Sir Inglis Peak (2164), at the Western Sound (2443), Seagull Rock (2580), Lake Valley (*2463), Spade Point (*2573); Goose Fjord, Falcon Cliff (2875), Yellow Hill (3592, *3637), Midday Knoll (3495), 3rd winter quarters (3304), Gallows Point (*2989). Also found by WETHERILL. West coast: common along the Hell Gate to Lands End (*2849), Braskerud Plain (710, leg. ISACHSEN). Numbers marked with * belong to the variety.

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Canada, Rocky Mountains to Arizona, Alaska, Unalaschka, Northern Siberia, Kamshatka, Baical Mountains, Ural, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Russia, Finland, Scandinavia, Riesengebirge, mountains of Great Britain, Faeroes, Iceland, Jan Mayen.

Saxifraga stellaris, L.
var. *comosa*, Retz.

S. stellaris β comosa, Retzius, Fl. Scand. Prodr., 1779; Poiret, in Lamarck, Encyclopédie méthodique, VI, ex Ledebour, Fl. Ross.; Engler, Mon. Saxifr.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Simmons, Prel. Rep. et Bot. Arb.; Kjellman, in Vegaexp.; Macoun, Pl. Pribilof; Andersson & Hesselman, Spetsb. kärlv.; *S. stellaris* var. *prolifera*, Sternberg, Mon. Saxifr., suppl. II; *S. foliolosa*, R. Brown, Chlor. Melv.; Hooker, Fl. Bor. Amer.; *S. comosa*, Britton & Brown, Ill. Fl.; *S. nivalis* forma, Oliver, List fl. pl.; *S. virginiensis*, Hart, Bot. Br. Pol. Exp., non Michaux.

Fig. Linnaeus, Fl. Lapp., T. 2, fig. 3; Fl. Dan., T. 2354.

In Ellesmereland, I have always seen *S. stellaris* represented only by this variety, never with even a single flower developed. The same was the case in Foulke Fjord, and Ivsugigsok is the only place north of Melville Bay from which I have seen it with terminal flower (in some of the specimens of Nathorst). At Godhavn, it generally had top flowers, even if the others were replaced by gemmae, but in southern Greenland it passes into the typical form, which probably fruits there.

The var. *comosa* is doubtless only a form adapted to high arctic conditions, and would, if it were cultivated in more southern regions, probably go over to the typical one. To me, it seems therefore quite out of the question to look upon it as a separate species.

The variety is first mentioned by Linnaeus, Fl. Lapp. (I have only had access to Ed. II of J. E. Smith, 1792, but this is, in most parts, a reprint of Ed. I). Here a clear description is given, as also a rather good figure, but no name. Retzius, l. c., p. 79, is the first to use the name *β comosa*, with reference to the figure in the Fl. Lapp., and consequently he is to be quoted as author, instead of Poiret who later has used the same name, but who is nevertheless quoted by Engler, l. c., p. 133, and others.

S. stellaris var. *comosa* is not common in Ellesmereland and in most localities only single individuals were found, but it is probably spread over the whole country. Hart and Greely indeed have not mentioned it from the northern parts, but the former nevertheless did find it. Specimens in the Nat. Hist. Mus. herbarium show that the "*S.*

nivalis forma monstrosa, floribus proliferis" of OLIVER, about which HART, l. c., p. 31, says, "may possibly be a variety of *S. Virginiensis,* MICH.," is really this plant.

It was in general found in wet places, in swamps, or in shady localities among moss.

Occurrence. Grinnell Land: Shift Rudder Bay (leg. FEILDEN!), Discovery Harbour (leg. HART!). Hayes Sound district: Skräling Island in Alexandra Fjord (1382), Lastraea Valley (1237), Cape Rutherford (1158), Fram Harbour (1098, 1420), Bedford Pim Island at Cape Sabine (276) and on the south side. South coast: Harbour Fjord, Big Valley, Seagull Rock, Sir Inglis Peak, at the Western Sound (2436), Lake Valley (2462), Spade Point (2530, 2574); Goose Fjord, Yellow Hill (4221), and several places around the 3rd winter quarters. West coast: only observed at Lands End.

Distribution: Northern East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, Maine, Colorado, Pribilof Islands, Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia. The main species also in the Baical Mountains, Central and South European mountains, Great Britain, Faeroes, Iceland.

Saxifraga groenlandica, L.

S. groenlandica, LINNAEUS, Sp. plant., 1753; *S. caespitosa,* LINNAEUS, l. c., ex p., secus ENGLER, Mon. Saxifr.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; HARTMAN, Skand. Fl.; *S. decipiens,* EHRHART, ex ENGLER, l. c.; STERNBERG, Revis. Saxifr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl., et Jan May.; GRÖNLUND, Isl. Fl.; OSTENFELD, Phan. Faer.; *S. decip.* f. *caespitosa,* KJELLMAN, in Vegaexp.

Fig. Sv. Bot., T. 731; Fl. Dan., T. 71, 1388.

ENGLER, l. c., p. 187, points out, that LINNAEUS has understood by his *S. caespitosa* both certain forms of that plant found in Scandinavia which has afterwards usually passed under this name in our floristic literature, as well as the *S. moschata,* WULF. which is commonly spread in the Alps. As the name *S. caespitosa* is further used by different authors, now for one, now for another plant, he deems it best to let the ambiguous name *S. caespitosa* fall, and to use other names for the two plants that LINNAEUS united. This may be quite right, but in doing so, he nevertheless, in my opinion, becomes guilty of two faults, viz., for one thing he uses the name *caespitosa,* L. for a sub-species of the plant which he calls *S. decipiens,* EHRH., for the other, he uses the

latter name instead of *S. groenlandica*, L., a name which is quite as old as the name *caespitosa* (Sp. plant., Ed. I, p. 404). Even if it has not from the beginning had reference to the entire range of forms of the species, it must nevertheless be used for it and not for one of the forms only as is done by ENGLER, l. c., and others. In ENGLER & PRANTL, Pflanzenfam. III, 2a, p. 55, ENGLER again has used *S. decipiens*, EHRH. for the main species, *S. caespitosa*, L. is said to exist only "in den arktischen Ländern und auf den Rocky Mountains". I have not been able to find the original description of EHRHART's *S. decipiens*; it does not exist where ENGLER (l. c., p. 186) quotes it from, EHRHART, Beitr. Naturk., V., p. 47. But even if it should apply better to the entire series of forms within the range of the species, the oldest name must, in all circumstances, be kept up, and for the above-mentioned reasons I consider that, as there are two equally old names given by LINNAEUS, the right course to take must be to give preference to the name *S. groenlandica*, which can only apply to the arctic and sub-arctic plant here in question, and not to any of the similar species of central European mountains. In the herbarium of LINNAEUS, some parts of which I have had occasion, through the kindness of the Secretary of the Linnaean Society of London, Mr. B. DAYDON JACKSON, to inspect, there is no "*S. groenlandica*" to be found, and "*S. caespitosa*" is only represented by one specimen from Idwell in Carnarvonshire, which is the plant commonly understood by that name, and another quite different one, without any note about its origin. That LAPEYROUSE (Fl. Pyren.) and others have used the name *S. groenlandica* wrongly, is of no consequence.

Under his *S. caespitosa*, ENGLER enumerates a great many different forms, that are very difficult to keep distinct. One of the best characterised, however, seems to be the one which ROB. BROWN in Chlor. Melv., p. 16, describes as *S. uniflora* (he had already used the name without description in his List of pl. in Ross, Voyage I). The author himself says about it: "Nimis affinis *S. caespitosae* LINN.; vix distincta species". ENGLER has it, as far as I understand him right, as a form under *S. decipiens* var. *caespitosa* (cf. l. c., p. 190). Too much stress, however, must not be laid upon the characteristic expressed in the name, but the description must be given approximately the form it has in LANGE, l. c., p. 62.

S. groenlandica, L. var. *uniflora*, (R. BR.) m. Humilis, pulvinata; foliis radicalibus aggregatis, trifidis, cuneatis, breve petiolatis, laciniis obtusis; foliis caulinis linearibus vel inferne lobis lateratibus angustis instructis; flore unico (vel 2–3): laciniis calycis obtusis; petalis albis,

calyce duplo longioribus; calyce, ovario, caule, foliisque caulinis superioribus nigroglandulosis, plus minus viscidis.

This, in Ellesmereland, is the most common form, spread in different sorts of localities, principally in gravel plains, slopes, and rookeries. Only in a few places, in the shade of rocks or in especially flourishing vegetation it would go over into forms more like those from southern parts of the area of the species. The flowers were found from the middle of June till the end of the summer.

Besides the forms connecting the var. *uniflora* with the type, there are also two other forms of it to be mentioned. At Walrus Island HART has, July 1875, collected a specimen, which was all, or at least most of the leaves, entire, rounded, obovate, but for the rest like var. *uniflora.* It might perhaps be worthy of a name, but I shall abstain from giving it one, as I have seen so little of it. But to another form a separate name shall be given: forma *flavescens* n. f.: contracta vel fere acaulis, dense pulvinata, minus nigro-glandulosa, floribus magnis, petalis pallide flavis.

In Ellesmereland, this was only once found in a clay plain, but I also collected it in Devil's Island in Cardigan Strait. In Greenland it also may occur, as LANGE says about *S. decipiens*: "petala luteolo-alba". In the common form of *S. groenlandica* the petals are always purely white, but in dried specimens one cannot be quite sure of the real colour. Perhaps this form might be ranged as a variety besides var. *uniflora,* but still I think it better only to give it rank as a form thereof.

Occurrence. Specimens of the main form, or at least very like it, I have from the South coast: Harbour Fjord at the anchorage (2327); valley at the bottom of Goose Fjord (3273). Var. *uniflora.* North coast: Floeberg Beach (HART). East coast: common probably everywhere along the coast. According to HART, l. c., p. 30, it should be the most common plant in Grinnell Land, and it is mentioned by DURAND from Gale Point. Specimens from the Hayes Sound region: Cape Rutherford (312), Bedford Pim Island (298, 445, 1185). South coast: observed almost everywhere. Specimens from: Fram Fjord (1656); Harbour Fjord, Sir Inglis Peak (2171, 2448); Goose Fjord, Yellow Hill (3574), Midday Knoll (3496, 3638), 3rd winter quarters (3182), Falcon Cliff (4222), interior of Walrus Fjord, (2112). West coast: along the Hell Gate, at Lands End, and between Eidsfjord and Baumann Fjord, doubtless also further northwards, but not brought home from the

Ellesmereland side by the sledging parties. F. *flavescens:* in clay soil in the great valley at the bottom of the Goose Fjord (3274).

Distribution: Greenland, Arctic American Archipelago, Arctic America, Labrador, New Foundland, Canada, Rocky Mountains to Colorado, Alaska, Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, mountains of Germany (not in the Alps), Jura, Pyrenées, mountains of France, Belgium, Great Britain, Faeroes, Iceland, Jan Mayen.

Saxifraga groenlandica, L.

* *exaratoides*, n. subsp.

S. mixta, Lapeyrouse, Fl. Pyren., ex p.? *S. exarata*, Hooker, Fl. Bor. Amer., non Villars.

Fig. Tab. nostra 7, fig. 1–5.

Laxe pulvinata, caulibus numerosis, 1—4 foliatis; folia basalia triloba, cuneata, lobis acutiusculis; folia caulina remota, inferiora triloba, superiora linearia, glandulosa; inflorescentia subcorymbosa, flore terminali lateralibus majore; flores omnino parvae; lacinia calycina acutiuscula; petala parva, angustata, sepalis parum longiora, alba vel pallide rosea.

When I first found this plant, I was in great doubt how to classify it. Indeed I did not doubt that it must belong to the form-series of *S. groenlandica*, but, on the other hand, there was a certain resemblance in the flowers to *S. nivalis* that was found rather abundantly in the same locality. The small, agglomerate, reddish flowers at first sight reminded me very much of the latter species. I thought also that it could perhaps be a hybrid between the above-mentioned species, but many things tell against that: firstly that its fruit, to judge from the old stalks, was well developed, that it was found in great numbers and that hybridisation is a thing which must not be too easily assumed in arctic regions. As will be shown below, I have since seen specimens of it from other parts of the world also, and have even found it mentioned in literature, and at last I arrived at the conclusion that it had to be looked upon as a sub-species of *S. groenlandica.*

From that species it differs, however, evidently in its very small flowers that are very densely clustered in a sub-corymbose inflorescence, with petals that are not purely white but which have a touch of pink. The flowers also are more numerous than in the common *S. groenlandica* var. *uniflora.* The central flower is generally considerably

larger than the lateral ones, and has somewhat longer petals, which, however, are hardly more than a third part longer than the calyx-lobes. The glandulose covering resembles that of the var. *uniflora* but is feebler.

Habitually *S.* **exaratoides* shows a considerable resemblance to *S. exarata,* Vill., and has also been taken for that species. When examining my material, and comparing it with specimens in the Copenhagen herbarium, I was for a time inclined to refer my plant to the latter species, the more so, as it is also recorded from the Rocky Mountains; but upon closer examination, it appeared that the plant which Hooker calls *S. exarata* could not be identical with the european species. On the other hand, his description applied very well to my Ellesmereland specimens, and in assuming these to belong to the same form as the Rocky Mountains plant, it was easily understood why Hooker (l. c., I, p. 244) could speak of the difficulty of distinguishing *S. exarata* from *S. caespitosa.* Afterwards, when I was studying at Kew, I found the identical specimens from the Hookerian herbarium from which Hooker's description must have been made. They were collected by Drummond in the Rocky Mountains, and on the label stands: "S. caespitosa ?? var. florib. minoribus sed vix". The plant was entirely in accord with my Ellesmereland one, as were also some other specimens which will be mentioned in the statement about the distribution. In Copenhagen, I also saw european specimens of it, collected in the Western Pyrenées by the elder Blytt, and also one which was probably from Unalaschka. Blytt's plant has a certain interest, not only because it extends the range of the sub-species so far, but also because it helps one to understand what is comprehended in *S. mixta,* Lapeyrouse, l. c. It can hardly be doubted, that his figure 20 represents the same plant as Blytt's specimens, but on the other hand the figure 21 gives a plant differing in its looser mode of growth, its strongly veined leaves, and the laxer inflorescence. I should think this must be referred to *S. exarata.* Don, Mon. gen. Saxifr., p. 433, puts *S. mixta,* Lap. as a synonym under *S. exarata,* but Engler has kept *S. mixta* as a separate species, which may perhaps be right, even if it has originally comprehended different plants. It must, partly at least, have reference to a plant with veined leaves, but the flowers are represented as pink, which does not apply to *S. exarata.* I must, however, leave aside what is really meant by *S. mixta,* Lap. The true *S. exarata* differs habitually from our plant in its far more slender growth, in its very

much feebler glandulose covering, often 5-cleft leaves with narrower, obtuse segments.

Occurrence and habitat. *S.* **excaratoides* was only found at the Falcon Cliff in the Goose Fjord in Southern Ellesmereland, in the rich slope below a nesting-place of glaucous gulls, falcon and other birds. When collected, July 20, 1901, it was in full bloom and many fruit stalks from last year were also seen in the plants (2870).

Distribution: West Greenland ? (some specimens in the Copenhagen herbarium may perhaps be referred to it). Northwest coast of America, Menzies (Nat. Hist. Mus. sub *S. exarata*), "frequent upon the Rocky Mountains between 52° and 56°," Drummond, (Hooker, l. c.), Gray's Peak, Colorado (1300 feet), Marcus E. Jones 1878 (Nat. Hist. Mus. sub *S. caespitosa*), Mt Agassiz (Alt. 1200), N. Arizona, J. G. Lemmon and wife 1884 (Nat. Hist. Mus. sub *S. caespitosa*); Unalaschka (?); probably at Kotzebue Sound. Perhaps in the Land of the Chukches (sub *S. exarata* in Ledebour, Fl. Ross., II, 1, p. 224). Western Pyrenées (Blytt).

Saxifraga cernua, L.

S. cernua, Linnaeus, Sp. plant., 1753; Sternberg, Revis. Saxifr.; Engler, Mon. Saxifr.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; Kruuse, Jan May.

Fig. Linnaeus, Fl. Lapp., T. 2, fig. 4; Sv. Bot., T. 730; Fl. Dan., T. 22, 390; Sternberg, l. c., T. 12, fig. 2.

Very common in almost every locality except svamps. Most abundant in rookeries and places of old Eskimo habitation. More than one flower rarely developed, often none; the bulbillae are probably its only organs of propagation, as the fruit was never developed so far as I have seen.

Occurrence. Grinnell Land, Discovery Harbour (Hart, Greely), north of Princess Marie Bay (Hart), probably common. Hayes Sound region, common; specimens from: Cape Rutherford (315), Fram Harbour (295, 1093), Bedford Pim Island (261). South coast, common; specimens from: Fram Fjord (1657), Harbour Fjord (2438). West coast: between Eidsfjord and Baumann Fjord.

Distribution: Northern East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, New Foundland, Rocky Mountains, Alaska, St. Lawrence Island, Arctic Asia, Kamshatka, down

to Altai and Tibet, Arctic Russia, European mountains down to Spain and Portugal, Great Britain, Faeroes, Iceland, Novaja Semlja, Spitsbergen, Franz Joseph Land, Jan Mayen.

Saxifraga rivularis, L.

S. rivularis, LINNAEUS, Sp. plant., 1753; STERNBERG, Revis. Saxifr.; ENGLER, Mon. Saxifr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.; *S. vaginata*, STERNBERG, l. c., Suppl. II; *S. Laurentiana*, SERINGE, in DECANDOLLE, Prodr.; *S. petiolaris*, R. BROWN, List of pl., et Chlor. Melv.

Fig. LINNAEUS, Fl. Lapp., T. 2, fig. 7; STERNBERG, l. c., T. 12, fig. 4; Sv. Bot., T. 729; Fl. Dan., T. 118.

Rather variable in size, shape of the leaves, hairiness, colour of the flower, &c. I have not, however, been able clearly to distinguish any of the forms, which ENGLER, l. c., p. 105, has described, but I think that some of my specimens from rather dry, mossy localities may be referred to the var. *purpurascens* of LANGE, l. c., p. 62. They have red flowers, but that seems also to be the case with specimens of ROB. RROWN's *S. hyperborea*, which is also a variety of the present species. LANGE has the var. *hyperborea* also as different from his own form, but surely it is very difficult to draw the line between them. My specimens with red flowers have generally a single stem only, but LANGE says about var. *purpurascens* "dense pulvinato-caespitosa", which again holds true also for some of the *hyperborea* specimens, at least, that I have seen in the Nat. Hist. Mus. Of *S. hyperborea* there exists no figure, as it is a mistake when ENGLER, l. c., quotes STERNBERG, Suppl. II, T. 15. Some plants belonging to *S. rivularis* are indeed figured, but of *S. hyperborea* no figure is given. Another peculiar form, which, however, is not sharply defined, was found in several localities (464, 640, 1103); it is almost stalkless, very small, and generally densely tufted. The plants designed with the names *S. vaginata*, STERNBERG, Suppl. I, p. 39 and T. 15, *S. petiolaris*, R. BROWN, List of pl., and Chlor. Melv., *S. Laurentiana*, SERINGE in DECANDOLLE, Prodr. IV, p. 35, are not to be distinguished even as varieties. The name *S. Chamissonis* is also used for *S. rivularis* by STERNBERG, but only in labels (I have seen a specimen in the Stockholm herbarium "ex insula Chamissonis, misit Chamisso"), but later, he has transferred the name, altered to *S. Chamissoi*, to another plant (cf. *S. tricuspidata*).

S. rivularis is spread over the territories visited, but is not plentiful. It grew generally in wet places, among moss or in clay soil, the

redflowered variety in somewhat drier, but nevertheless moss-covered, rockledges. Flowers from the end of June.

Occurrence. Grinnell Land, Bellot Island in Lady Franklin Bay (HART), Discovery Harbour (GREELY). Hayes Sound district: Beitstad Fjord, Skräling Island, Cape Viele (884), Eskimopolis (843), Lastraea Valley, Cape Rutherford, Fram Harbour (454, 640, 1103, 1401), Cocked Hat Island, Bedford Pim Island (268, and Cape Sabine, HART), Brevoort Island (1208, leg. FOSHEIM). South coast: Harbour Fjord, in several places (2440, 2464, 2527); Goose Fjord, in several places. West coast: only seen from Braskerud Plain (708, leg. ISACHSEN).

Distribution: Both coasts of Greenland, Arctic American Archipelago, Arctic America, Labrador, White Mountains, Rocky Mountains to Colorado, Alaska, islands of the Bering Sea, Arctic Asia, Kamshatka, Baical Mountains, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, Scotland, Faeroes, Iceland, Jan Mayen.

Cruciferae.

Hesperis Pallasii, (PURSH) TORR. & GRAY.

Cheiranthus Pallasii, PURSH, Fl. Amer. sept., 1814; *Ch. ? Pallasii,* HOOKER, Fl. Bor. Amer.; *Ch. pygmaeus,* ADAMS, Descr. plant. min. cogn.; GREELY, Rep.; *Sisymbrium pygmaeum,* TRAUTVETTER, Consp. Fl. Nov. Seml.; KJELLMAN, in Vegaexp.; *Hesperis pygmaea,* HOOKER, Fl. Bor. Amer., non DELILE; *H. Hookeri,* LEDEBOUR, Fl. Ross.; *H. Pallasii,* TORREY & GRAY, Fl. N. Amer.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; SIMMONS, Prel. Rep. et Bot. Arb.

Fig. HOOKER, l. c. I, T. 19.

As the above synonymic shows, there have been rather different opinions as to the place of this species. An examination of the seed, however, has convinced me that the plant must be referred to the *Notorhizae* of DECANDOLLE, Systema. Consequently, it can be no *Cheiranthus,* and it differs from *Sisymbrium,* where TRAUTVETTER has placed it, in several respects, such as the rather deeply saccate transversal sepals, the deeply divided stigma and the violet petals. LEDEBOUR is quite right in observing that the species-name of ADAMS cannot be used when the plant is referred to *Hesperis,* but evidently at first he has not known the *Cheiranthus Pallasii* of PURSH, which is the oldest name, as he gives it a new one. However in the Addenda (l. c., I, p. 759) he has put PURSH's name among the synonyms.

Among the Ellesmereland plants, *H. Pallasii* is pre-eminent by its strongly sweet-scented flower. This quality, as is well known, is

very rare in arctic plants as a whole, as the pollination by means of insects plays so small a part in the Arctic Regions. I have had no opportunity of observing which insects visit the flowers of *Hesperis*, as I only saw it twice and only in a few individuals; but HART, l. c., p. 26, speaks of a minute red dipterous insect, which he found in them. The pods are not plane as HOOKER, l. c., p. 60, says, but must rather be described as terete, but for the strong middle vein, which forms a sort of keel. Different authors have differently designated the plant in question — as annual or biennial. As a fact, it is, at least in the regions where I saw it, perennial, as was to be seen in individuals furnished with fruit-stalks from last year as well as with new inflorescenses. Some individuals were also seen that had died after flowering (for the first time?), but probably those also were several years old.

It was found only on slopes of gravel, where the strong root could descend deeply, and was found in flower already June 11th, 1899. Pods from last year with ripe seed, were also seen at the same time. GREELY, l. c. II, p. 12, mentions it as flowering in Discovery Harbour already June 8th, 1883.

Occurrence. Grinnell Land: Discovery Harbour, Bellot Island, Muskox Bay (HART). Hayes Sound district: Beitstad Fjord, innermost part (650), Twin Glacier Valley in Alexandra Fjord (881). Not found on the western coast, but probably growing there, as SCHEI collected it at Hyperite Cape in Heiberg Land.

Distribution: Northwestern Greenland, Arctic American Archipelago, Arctic America, Alaska, Arctic and Eastern Siberia, Novaja Semlja.

Braya purpurascens, (R. BR.) BUNGE.

Platypetalum purpurascens, ROB. BROWN, Chlor. Melv., 1823; HOOKER, Fl. Bor. Amer.; *Braya purpurascens*, BUNGE, in LEDEBOUR, Fl. Ross.; GELERT, Not. Arct. Pl.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; *B. alpina* var. *glabella*, GREELY, Rep. (?); *B. glabella*, RICHARDSON, App. Franklin I (ex p.?); *B. alpina*, HART, Bot. Br. Pol. Exp.; NATHORST, N. W. Grönl.; non STERNBERG & HOPPE.

Fig. Fl. Dan., 2295; GELERT, l. c., fig. 3.

GELERT has (l. c., p. 291—294) given an explanation of the relations between the plant here in question and the true *B. alpina*, and has stated their distribution as far as the material which he has had

an opportunity of examining allowed, and I have very little to add to his statement, except the appearance of the species in some of the places that I visited.

He has given preference to the specific name of R. BROWN, as the synchronous one of RICHARDSON is said to be referable to *B. alpina*, as appears from a specimen, collected by RICHARDSON, now in the Nat. Hist. Mus. This I have myself seen and can only verify GELERT's classification, but I have also seen another specimen in the Copenhagen herbarium, which is labelled (in the handwriting of LANGE): "Braya purpurascens (R. Br.) Ledeb., Braya glabella Richards., ex expeditione Franklini". It contains two plants, of which one has very young pods, and the other is in so bad a state of preservation, that it is hardly possible to determine. As far as I can judge, however, LANGE seems to be right. If it be so, RICHARDSON must have collected both, and made no difference between them, which also seems very probable, for it would be rather curious if he had not found the species which somewhat further north, is the only one of the genus. I am most inclined to think, that he has indeed meant the same plant as R. BROWN at the same time described from the first PARRY-expedition. Still, I think that the name *purpurascens* must be retained, as there is no doubt about its meaning, rather than the ambiguous *B. glabella*.

B. purpurascens grows principally in open clay soil, where sometimes it will appear in abundance; less often single individuals are found in a closer vegetation. Flowers from the beginning of July, and fruits abundantly.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: St. Patrick's Bay, Discovery Harbour, Cape Collinson, Norman Lockyer Island (HART). (Absent from the Hayes Sound region ?). South coast: Fram Fjord (1640); Harbour Fjord, many places (2388, 2555); Muskox Fjord (2118, 2137, 2148); Goose Fjord, common in the inner part (3326). Western coast: Reindeer Cove, Lands End, between Eidsfjord and Bauman Fjord, Coal Bay.

Distribution: Northeastern and Northwestern Greenland, Arctic American Archipelago, Arctic America, Bering Sea Region, Arctic Siberia, Novaja Semlja, Spitsbergen.

Arabis arenicola, (RICHARDS.) GELERT.

Eutrema arenicola, RICHARDSON, in HOOKER, Fl. Bor. Amer. I, 1840; *Sisymbrium humifusum*, VAHL, Fl. Dan.; LANGE, Consp. Fl. Groenl.; *Arabis humifusa*, WATSON, Contr. Amer. Bot.; BRITTON & BROWN, Ill. Fl.; *Parrya arenicola*, HOOKER, Outl. of Distrib.; GREELY, Rep. (?); *Arabis arenicola*, GELERT, Not. Arct. Pl.; SIMMONS, Prel. Rep. et Bot. Arb.

Fig. Fl. Dan., T. 2297; HOOKER, Fl. Bor. Amer., I, T. 24; GELERT, l. c., fig. 1.

The synonyms and distribution of this plant are also very thoroughly examined by GELERT, l. c., p. 287—91, so as to make it quite unnecessary to go into details about it. It may only be added that the plant has nothing to do with *A. lyrata*, L., to which it is referred in the Index Kewensis.

The Ellesmereland specimens, of which I have only a couple, are very small with somewhat more dentate leaves than in the figures quoted, for the rest, they are well in accord with them as also with specimens from Greenland in the Copenhagen herbarium. As they are rather hairy in the lower part of the stem and in the leaves, they may be referred to var. *pubescens*, (WATS.) GEL.

In the only locality where I found it, the plant grew in clay soil mixed with gravel, in company with *Lesquerella*, *Drabae*, etc. At the time it was found, June 11th, 1899, it had only some pods of the previous year, with ripe seeds.

Occurrence. Grinnell Land: Discovery Harbour (GREELY); I think there need be no doubt about the determination, as the plants of the expedition were examined by WATSON among others; indeed there is a note of interrogation put after the name (GREELY, l. c., p. 12) but the plant now being found also further south, the Grinnell Land locality probably has reference to it. Hayes Sound, innermost part of Beitstad Fjord, immediately in front of the bottom glacier (4266).

Distribution: Western Greenland, Arctic America, Labrador, Alaska.

Draba alpina, L.

D. alpina, LINNAEUS, Sp. plant., 1753; GELERT, Not. Arct. Pl.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; NATHORST, Nya bidr.

Fig. Fl. Dan., T. 56; Sv. Bot., T. 771; GELERT, l. c., fig. 11.

GELERT, l. c., has begun the comprehensive work of unifying the statements in literature concerning the genus *Draba*, and he has taken

the only way which is, in my opinion, possible to take, viz., to throw together a great many species distinguished by different authors, but impossible to keep apart by the characters given for them. Indeed it may be possible, that some of the reduced species may really be constant forms, but that can hardly be decided without a systematic culture under natural conditions, such as is possible only in an arctic biologic station; most forms doubtless, are due to some difference or other in the natural conditions under which the plant grows, and will alter with them. At present, I think, the arrangement of GELERT is by far the best, even if I differ from him in a few points. One of these has reference to *D. alpina;* GELERT has namely retained *D. glacialis,* ADAMS as a separate species, but so far as I have been able to find, there are no characters to define it from *D. alpina.*

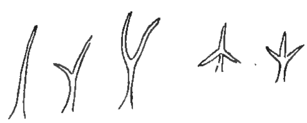

Fig. 1. Typical hairsforms from the leaves of *Draba alpina.*

D. alpina likewise with all other arctic species of the genus, or at least with most of them, is very variable as to shape of the leaves, hair-covering of different parts, form of the pod, &c. As I have had no opportunity of seeing authentic specimens of the many species that GELERT has reduced to this, I think it best not to enter into their relative positions to the main species, or into synonyms at all; for these I only refer to GELERT's paper. Only where I have had, in my own material, specimens of the varieties for examination, I must enter into some details about their systematic value and position.

Var. *oblongata,* (R. BR.) GELERT.

D. oblongata, R. BROWN, List of pl.; DECANDOLLE, Prodr. I; HOOKER, Fl. Bor. Amer. Fig. GELERT. l. c., fig. 12.

GELERT, who has in his treatment of this form, principally followed TH. M. FRIES (Till. Spetb. Fan. Fl., and Nov. Seml. Veg.), does not hesitate to claim the species of BROWN as a variety of *D. alpina,* even if it is rather difficult to decide what the author has understood by his name, which is published (l. c.) without any description. FRIES, who has seen the original specimens in the Nat. Hist. Mus., has, however, transferred the plant from the *Leucodrabae,* where it stands in DECANDOLLE, l. c., p. 168–169, to the *Chrysodrabae.* He had, already before seeing the specimens, distinguished the plant in question (Till. Spetsb.

Fan. Fl., p. 130), which he then called *D. leptopetala*. But afterwards, he puts this among the synonyms of *D. oblongata* together with 6 other names, that he quotes after TRAUTVETTER, Consp. Fl. Nov. Seml. In my opinion, GELERT is quite right in reducing it to a variety of *D. alpina*, distinguished by a strong and dense hair-covering but not sharply defined from the main form.

Var. *glacialis*, (ADAMS) KJELLM.

D. glacialis, ADAMS, Descr. plant. min. cogn.; TRAUTVETTER, Consp. Fl. Nov. Seml.; GELERT, l. c., ex p.; non HOOKER, Fl. Bor. Amer.; *D. alpina* var. *glacialis*, KJELLMAN, in Vegaexp.

Already TRAUTVETTER (l. c., p. 54) and TH. M. FRIES (Till. Spetsb. Fan. Fl.) have held out that the *D. glacialis* of ADAMS cannot be upheld as a species separate from *D. alpina*, without however reducing it to a variety, as KJELLMAN (Sib. Nordk. Fan. Fl., p. 266) has done, whereas GELERT again thinks that it may be distinguished as a species. To this he comes, however, by examination of specimens from America, determined by HOOKER, and forming his material for the description in Fl. Bor. Amer. I, p. 51. Those indeed belong, as GELERT rightly observes, to a species of the section *Aizopsis*; I have myself seen arctic as well as Rocky Mountain specimens of this plant, which is, however, quite different from the asiatic one of ADAMS. The *D. glacialis* of GELERT consequently comprises two different plants of which I do not hesitate to place one, viz. the original *D. glacialis* of ADAMS as a variety of *D. alpina*, notwithstanding that I have seen no original specimens of it, the more so as TRAUTVETTER, who has probably known the original plant, has referred it to *D. alpina*, and this author has not otherwise been apt to give a too wide range to his species. Specimens from Taimyr (leg. MIDDENDORF?) referred by GELERT to *D. glacialis*, from Cape Chelyuskin (leg. KJELLMAN) and from Melville Island (leg. TREVELYAN) in the Copenhagen herbarium, as also several specimens in the Nat. Hist. Mus., doubtless represent a variety of *D. alpina*, which has narrow, sometimes even linear, leaves with a very prominent middle vein, which is continued up to the point of the leaf. The covering mostly consists of starry hairs, and the scape and especially the pods, are in general rather glabrous (cf. also OSTENFELD, Flow. pl. Cape York, p. 67). This variety, however, is not easily distinguished from the type of the species.

Var. *gracilescens* n. var.

Forma insignis, scapo longiore et tenuiore quam in typo, floribus pallide flavis, racemo post florationem elongato, siliculis elipticis, glabris vel parce hirsutis.

Fig. Tab. nostra 6, fig. 1—3.

The form here in question was very conspicuous both on account of its rather big, pale yellow flowers and, in fruiting stage, by its considerably elongated raceme. I was also inclined to look upon it as a separate species, but forms exists which connect it with *D. alpina*. It would often appear with only one rosule of leaves and a single or a couple of scapes, but also with a branched rootstalk, which was, however, always elongated and slender. The leaves vary, as in the main species, but generally they are rather broad, thin, and not very densely hairy. The scape is rather tall (3 inches or more), erect, slender. It is still more stretched during the development of the pods, and then also grows somewhat more stout and stiff. It is rather sparsely hairy. In fruiting state, the plant shows a certain resemblance to *D. fladnizensis* in the build of the raceme and also in the form of the pods, that are more pointed at both ends than in the typical *D. alpina*. The var. *gracilescens* generally grows in moist localities, especially in deep moss, viz., in the same localities as those preferred by *D. fladnizensis*. Indeed, there might be certain inducements to take it for a hybrid between *D. alpina* and the last-mentioned species, but, on the other hand, it fruits abundantly. When in flower, it is distinguished easily enough from *D. alpina* f. *typica* and other varieties, by its pale flowers, but in fruit it is more difficult to keep apart, and then there arises the further difficulty of distinguishing it from *D. fladnizensis*. Indeed, the arctic *Drabae* are always most easily separated when in flower, at least when living. Dried specimens are always difficult to distinguish, and I should think, that the statements about *D. fladnizensis* with a pale yellow flower, that are to be found in several works, are partly due to herbarium specimens with flowers that have lost their pure white colour, partly to confusion with this variety of *D. alpina*. When HART, Bot. Br. Pol. Exp., p. 25, speaks of "pale yellow glabrous forms of *D. alpina*, which occurred in Discovery Bay", that appeared "impossible to separate from *D. androsacea*, WAHL., which is often pale yellow", I think he has in fact had this plant in front of him, although I have not been able to identify it among his specimens. Another plant I must refer to it, after

seeing specimens in the Stockholm herbarium, is the "*Draba alpina,* L. var. *glacialis* närmande sig (approaching) *Dr. Wahlenbergii* f. *brachycarpa*" of NATHORST from Ivsugigsok at Melville Bay, (N. W. Grönl., p. 25).

Also in Spitsbergen the same variety probably appears, to judge from several specimens in the Stockholm herbarium, but I cannot be sure of it, as the colour of the flowers is not to be decided upon. I have not been able to find in literature any name which could, without doubt, be referred to it. There is indeed a *D. ochroleuca,* BUNGE, described in Verz. Altai Pfl., p. 69—70, which seems to have certain resemblances to it, but the description does not quite apply, and as I have seen no original specimens, I have thought it better not to use the name. But I do not doubt, that BUNGE's plant is a variety of *D. alpina,* as GELERT, l. c., p. 301, says. As synonyms of *D. ochroleuca* LEDEBOUR, Fl. Ross. I, p. 147, and GELERT have *D. primuloides,* TURCZ. and *D. gelida,* TURCZ.

Draba alpina is one of the most common plants in Ellesmereland, where it is found in almost every place visited in the most different localities, the varieties *oblongata* and *glacialis* together with the type, the var. *gracilescens* as already mentioned, in wet, mossy places. It flowered from the end of June, or earlier, and fruited profusely.

Occurrence. North coast: Floeberg Beach, Cape Joseph Henry (HART). Grinnell Land: Discovery Harbour, and southwards (HART, GREELY). Hayes Sound district, common. Specimens from: Skräling Island (1381), Cape Rutherford (687, 1201), Fram Harbour (291, 4190), Bedford Pim Island (256, 443, 1189, 1261). South coast, common. Specimens from: Fram Fjord (4204), Harbour Fjord (2456), South Cape Fjord (2062), Muskox Fjord (2143), Goose Fjord (3305, 3330, 3430, 3649, 3822). West coast: along the Hell Gate to Lands End (2847) between Eidsfjord and Baumann Fjord, Coal Bay.

Var. *oblongata.* South coast: Fram Fjord (1641, 1671); Goose Fjord, at the Yellow Hill (3595) and Falcon Cliff (4213).

Var. *glacialis.* Hayes Sound district: "Fort Juliane" (673, 1060), Eskimopolis (849), Fram Harbour (4193), Bedford Pim Island (1198, 4186, 4187). South coast: Harbour Fjord, valley on Sir Inglish Peak (2160), east of the anchorage (2234); Goose Fjord, at Falcon Cliff (2874, a broad-leaved and rather hairy form, but with the middle vein running out to the point).

Var. *gracilescens.* Grinnell Land, Discovery Harbour (HART, cf. above); Hayes Sound district: Skräling Island (4196), islet at Cape Viele

(1342), Eskimopolis (846), Fram Harbour (1096, 1205). Bedford Pim Island (1187, 4192). South coast: Fram Fjord, (4205), Harbour Fjord, valley at the western entrance (4208), Goose Fjord, below the Falcon Cliff (2888, 4007, type specimens of the description), 3rd winter quarters (3188), Yellow Hill (4211), Gallows Point (4209), Ptarmigan Gorge (4210). West coast: Lands End (2851).

Distribution: All over the Arctic Regions; alpine in America, in Asia down to the Himalayas, in the Ural, in Scandinavia, and Iceland.

Draba fladnizensis, WULF.

D. fladnizensis, WULFEN, Pl. rar. Carinth., 1778; GELERT, Not. Arct. Pl.; KRUUSE, List E. Greenl.; BRITTON & BROWN, Ill. Fl.; *D. lactea*, ADAMS, Descr. plant. min. cogn.; *D. lapponica*, WAHLENBERG, Fl. Lapp.; HOOKER, Fl. Bor. Amer.; *D. androsacea*, WAHLENBERG, l. c.; R. BROWN. Chlor. Melv.; *D. Wahlenbergii*. HARTMAN, Skand. Fl.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; NATHORST, Nya bidr.; *D. rupestris*, HART, Bot. Br. Pol. Exp., ex p., non R. BROWN.

Fig. Fl. Dan., T. 2420; Sv. Bot., T. 770; GELERT, l. c., fig. 14.

This species also is rather difficult to define; many species have been established within the range of its form-series, as is to be seen in the synonymic and further in the paper of GELERT quoted above. I can fully accept his views except in one instance, viz., when he puts *D. altaica*, BUNGE, under it as a variety. I shall have to speak more about that plant later.

In the flowering state, even dried specimens are generally rather easily distinguished, at least if they are in not too bad a state of preservation. But in its fruiting state, its resemblance to *D. alpina* can be so great as to make it very difficult to decide upon the place of a dried specimen, sometimes also of a living one. The variety *D. alpina* δ of HOOKER, l. c. I, p. 50, which is said to have white flowers, probably belongs to *D. fladnizensis;* perhaps also he has taken specimens of *D. alpina* with old, withered, and whitish petals for a white-flowered variety, but I have never seen any *D. alpina* with white flowers. The forms of *D. alpina* that are most easily confounded with *D. fladnizensis*, are especially the more slender ones, such as the var. *gracilescens*. The shape of the leaves as also the hair-covering vary, just in the same manner as in *D. alpina*, only the colour of the petals gives a distinct character, all others are relative. Indeed, the different sorts of hairs, especially the forked and stellate ones, are as a rule somewhat different in *D. alpina* and *D. fladnizensis*, but their forms are not constant,

many gradations exist. The figures give some of the more typical forms in both species as well as in *D. nivalis* and *D. hirta*. The margin cilias and other unbranched hairs are, of course, alike in the different species, but in *D. fladnizensis* there are perhaps more intermediate forms between all the three types in the hair-covering than in the others.

In my collection might be distinguished the different forms of the present species, which LINDBLOM (Känn. Skand. Drabae) has established, I have not, however, thought it necessary to separate them.

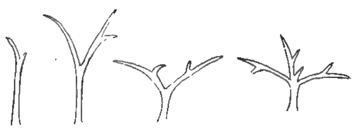

Fig. 2. Typical hairforms from the leaves of *Draba fladnizensis.*

D. fladnizensis was rather common in the region visited, but not quite so much so as *D. alpina*. It preferred somewhat wet soil, especially mossy depressions, that were flooded from time to time. The flowers were generally found from the middle of July, and soon after the fruit appeared.

Occurrence. North coast and Grinnell Land; this species is not mentioned by HART, but I have seen specimens among the collections from the NARES expedition, referred to *D. rupestris*. Even if I can give no special localities, I think it may be assumed to be rather common in the northern parts. Hayes Sound region, rather common. Specimens from: Twin Glacier Valley (890), Skräling Island (1372), Cape Viele (888), Cape Rutherford (1157, 1159, 4194), Fram Harbour (1128, 1163, 4188, 4189), Cocked Hat Island (1271), Bedford Pim Island (444, 1193, 4185). South coast, still more common, especially to the west. Specimens from: Fram Fjord (1643), Harbour Fjord (2170, 2225, 2461, 2524, 2581, 4206, 4214), Goose Fjord (2995, 3307, 3488, 3576). West coast: only noted from Reindeer Cove and Lands End, but probably common.

Distribution: East Greenland, Northern West Greenland, Arctic American Archipelago, Arctic America, Canada, Rocky Mountains to Colorado, Alaska, Arctic Siberia, Baical Mountains, Altai, Himalayas, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, Alps and Pyrenées.

Draba subcapitata, n. nom.

D. micropetala β, HOOKER, Flor. Bor. Amer.; *D. Martinsiana*, FRIES, Till. Spetsb. Fan. Fl., ex p., non GAY; *D. altaica*, FRIES, Nov. Seml. Veg.; KJELLMAN, in Vegaexp.; NATHORST, Nya bidr.; *D. fladnizensis* var. *altaica*, GELERT, Not. Arct. Pl.; KRUUSE, Jan May.; WULFF, Bot. Beob. Spitzb.; non *D. rupestris* var. *altaica*, LEDEBOUR, Ic. pl. Fl. Ross., (nec *D. altaica*, BUNGE, Verz. Altai Pfl.?).

Fig. Tab. nostra 1, fig. 3—8.

The plant here in question, has been variously treated by different authors, and I have first, after comparing a large material and a great many statements in literature, arrived at the conclusion that a new name must be given to it. HOOKER has (Bot. App. Parry II) established a *Draba micropetala*, with a description which agrees rather well with the present plant, except for the character: "foliis lato-lanceolatis"; but then J. D. HOOKER has since shown, that the specimens on which it is established, must be referred to *D. alpina* (Outl. of Distrib., p. 316). In fact, it has not white flowers as said in the description but yellow, as I have had the opportunity of verifying in the Nat. Hist. Museum, where the original specimen from Igloolik is kept. In Fl. Bor. Amer. I, p. 52, however, HOOKER has added a *β*, founded on specimens brought home by RICHARDSON from the coast between Coppermine and Mackenzie Rivers. These are in the Kew Herbarium and belong to the same plant, as that which I collected in Ellesmereland. HOOKER has, however, given no name to the plant which he wrongly put together with his *D. micropetala*. Indeed, a "minor" stands after the *β*, but is not in italics as the names are marked. As there are in the Fl. Bor. Amer. many varieties marked only with Greek letters but having no name, there can be no doubt about the "minor" being only a short description, the more so as it is said about the specimen in flower "which differs only from Capt. Parry's plant in its smaller size". As the main *D. micropetala*, is a form of *D. alpina*, here no name for our plant is to be found, moreover as HOOKER has placed under it also forms of *D. fladnizensis*, as I have seen in the Hookerian herbarium at Kew.

Another country in which the same plant grows, is Spitsbergen, and from there it was brought home by the Swedish expeditions after the middle of last century. It seems to have been first found by MALMGREN, 1861, who in Spetsb. Fan. Fl. doubtfully refers it to *D. pauciflora* R. BR., which seems, however, to be a small *D. alpina*. During the expedition of 1868, it was again found in several places by TH. M. FRIES and others, and FRIES now called it (in Till. Spetsb. Fan.

Fl., p. 131) *D. Martinsiana*, using a name which stood in a list of Spitsbergen plants by J. GAY in CH. MARTINS Observations sur les glaciers du Spitzberg, etc., in Bibl. Univ. de Genève, N. S., T. 28, p. 146, from 1840. This indeed was not described, but FRIES now gave a description to the name of GAY, which he referred to this plant after having seen an original specimen. But the same specimen, which is now in the Stockholm herbarium[1], I have also examined, and have come to the conclusion that it can be no other plant, than a stunted *D. alpina* (cf. GELERT, l. c., p. 301). FRIES, however, admits that if the *D. micropetala* of HOOKER is the same plant, the latter name is to be preferred. Soon after the Consp. Fl. Nov. Seml. of TRAUTVETTER appeared, and a plant was recorded which was called *D. altaica*. I have not seen TRAUTVETTER's specimens, but it seems very probable that, as FRIES assumes, the same plant was meant, as that which the latter author had previously called *D. Martinsiana*. Now the name *altaica* was the oldest, *D. rupestris* var. *altaica* being established in Ic. pl. Fl. Ross., p. 19, T. 260, by LEDEBOUR and consequently FRIES in Nov. Seml. Veg., cancels his previous name and calls the plant *D. altaica*.

The question therefore is, has really the same plant as the arctic one, been understood by LEDEBOUR? The original description says: "foliis saepius dentatis, scapis plerumque mono- vel diphyllis, rarius aphyllis, siculis ellipticis vel oblongo-ellipticis". This does not agree with *D. subcapitata*, and the figure quoted also shows clearly that it is a small form of *D. hirta* which is meant. FRIES (p. 37) indeed says that the figure of LEDEBOUR is so bad, featureless, and partly wrong, that it gives no idea of the plant, but, having seen an original specimen from the Altai, collected by BUNGE, in the Nat. Hist. Mus., I must assert that the T. 260 of LEDEBOUR gives a fairly good representation of the plant, which is nothing but a small *D. hirta*. Also C. A. MEYER in LEDEBOUR, Fl. Alt., p. 72, keeps the same diagnosis and speaks expressly of leafy stems and branches from the lowest axil, so as to leave no doubt that a *D. hirta* is meant. It is somewhat less clear what BUNGE, Verz. Altai Pfl., p. 70—71, means; perhaps he has had not only a small *D. hirta*, but also our plant, in his material, as also seems necessary to assume in reading the description of *D. altaica* of BUNGE (Del. sem. hort. dorp., 1841) where the plant is elevated to the rank of species,

[1] I am greatly indebted to Professor LINDMAN, who has kindly sent me a considerable collection of arctic Drabae from that Museum for a new inspection which was necessary, before I could make up my treatment of the genus.

as it is quoted in LEDEBOUR, Fl. Ross. I, p. 754—55 (The "Delectus" of BUNGE I have not seen).

However the original *D. altaica* was doubtless a small *D. hirta*, and the name can, under no circumstances be used for the plant which I call *D. subcapitata*. TRAUTVETTER may have known the true *altaica* and may also have found it in Novaja Semlja, but he has probably confounded the two plants. FRIES' *D. altaica*, as specimens in the Stockholm herbarium show, is, in most cases, my *D. subcapitata*, but as previously mentioned, he has also included in it the *D. Martinsiana*, GAY, which is a *D. alpina*, and probably small forms of *D. hirta* as he can refer the figure of LEDEBOUR to it. There are also in the Stockholm collection, specimens from Dudinka at the Yenissei River, which are referred by FRIES (with doubt), to *D. altaica*. They are rather bad, but doubtless belong to *D. hirta* and may be called var. *altaica* as far as I can judge.

Later GELERT, l. c., p. 303, has referred *D. altaica* to *D. fladnizensis*, but he can hardly have known the true Altai plant. It is, however, rather curious that *D. subcapitata*, which is, perhaps, the best defined of all arctic Drabae, should have been so treated by GELERT, with his keen eye for specific differences. It may perhaps be accounted for by his never having had any opportunity of studying arctic plants from nature.

The result of these researches in the synonyms may be summed up as follows:

D. altaica, (LEDEB.) BUNGE is *D. hirta* var.

D. micropetala, HOOKER is originally *D. alpina*, even if other forms have been confounded with it by the author himself.

D. Martinsiana, GAY (nomen solum) is *D. alpina*.

D. Martinsiana, TH. FRIES contains principally *D. subcapitata*, but also includes the last-mentioned, and in all probability the first.

It is, therefore, I think, quite justifiable to give the plant a new name. Against the last-mentioned of the older names, the only one that could perhaps be used, the previously existing confusion with other plants tells. Indeed the description in Till. Spetsb. Fan. Fl., p. 131—2, agrees with our plant, except on a few less significant points, which will be mentioned below, and the figures are rather good, except those which represent the plant in its flowering stage, but nevertheless, I think it is best not to adopt theold nomen solum of GAY, which belongs to another plant.

A description of *D. subcapitata* from my Ellesmereland specimens runs as follows:

Parva, dense caespitosa: folia integra, anguste lanceolata vel fere linearia, nervo distincto, pilis rigidis, crassis, ciliata, praeterea glabra vel apicem versus pilis similibus (furcatisque) insita. Scapi humiles, aphylli, pilis furcato-stellatis (simplicibusque) obsiti. Inflorescentia pauciflora, per anthesin subcapitata, demum plus minus elongata. Flores minuti, sepalis angustis, petalis brevis angustisque. Petala sepalis breviora, aequilonga vel paullo longiora, spathulata, apice rotundata vel retusa, alba. Siliculae primum lanceolatae, deinde rotundatae, crassae, purpureo-brunneae, nitidae.

D. subcapitata generally forms dense, low tufts. Each rosule of new leaves is surrounded by numerous old leaves, which are so hard in their texture, as to remain for several years. All, however, are densely packed together in the contracted stem. Elongated leafy stems such as are represented in the figure of FRIES (Till. Spetsb. Fan. Fl., T. 3) are not typical, even though they may sometimes be found where the plant grows among deep moss, or in other dense vegetation. In such individuals also, the leaves will become broader as in the typical

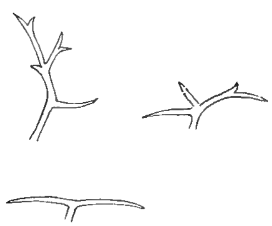

Fig. 3. Typical hairforms from the scape of *Draba subcapitata*.

form. I have no such among my material, but I have seen some specimens from Spitsbergen. The "foliis lato-lanceolatis" in HOOKER's description of *D. micropetala*, the only part of it which does not agree with *D. subcapitata* has reference to a *D. alpina* form, the original *D. micropetala*, as already mentioned. The leaves are coarsely ciliated, and similar unbranched hairs are also developed on the uppermost part of the surfaces, especially the upper one. Sometimes some of these hairs become more or less forked, but stellate hairs are not found. The middle vein is very prominent, sometimes quite to the tip of the leaf.

The scapes are always leafless, slender at first, later on more coarse and stiff, covered with hairs which may be said to form a link between the forked ones and the starry hairs of *D. hirta* and *D. nivalis*. FRIES in his description of *D. Martinsiana* says about the stalk, "pilis minutis simplicibus furcatisque puberulis", but simple hairs are rather seldom found and true forked hairs hardly at all. The same kind of

"pili furcato-stellati" also covers the short pedicels, here more interspersed with simple hairs. The inflorescence is, during the flowering season, very condensed, forming almost a head, hence the specific name. Later on the scape is somewhat stretched, but often the pods also sit densely clustered. There are specimens, however, especially from Spitsbergen, which have the pods further apart, and sometimes the lowest is removed from the others. The flowers are generally 2—5, rarely more, in the raceme.

The flower is very small with narrow, linear sepals, that are more or less hairy, with long, forked, or generally simple, hairs. The petals are pure white, spathulate, rounded, or more or less emarginate. They are so narrow as not to touch each other with their margins. The flower is so different from that of all other species, as to make *D. subcapitata* immediately distinguishable when living and in a flowering state. Also when the pod has begun to develop, the sepals and petals will still remain for a time.

The pod is at first broad-lanceolate, with sparse short hairs, but later on it becomes more ovate or almost circular, rather thick, and quite shiny glabrous, purplish-brown.

In habit, *D. subcapitata* resembles small stunted forms of *D. alpina* as well as of *D. fladnizensis* and *D. hirta*, and it may sometimes be difficult enough to distinguish herbarium specimens. This is why I cannot always assert that the specimens from other countries, I have seen, really belong to it notwithstanding a great resemblance. Especially small, glabrous, *D. alpina* specimens in fruit, are very difficult to separate from it.

D. subcapitata was rather common in clay or gravel fields with sparse vegetation along the Southwestern fjords, flowering about the end of June, and developing its pods in a very short time.

Occurrence. South Coast: Harbour Fjord, at the Western entrance (2437); Muskox Fjord, inner part (2118, 2140); Goose Fjord, Gull Cove (2896, 3821), Falcon Cliff (2872), Castle Point (3960), Yellow Hill (3591, 4212), East of 3rd quarters (3187, 3431, 3482), Ptarmigan Gorge, Gallows Point (2991), valley at the bottom. West coast: Lands End (2850), Braskerud Plain (709, leg. Isachsen). The latter is doubtful, as are also some fragments from the Hayes Sound region that may belong to it: Cape Rutherford (322), Bedford Pim Island (4191). I did not observe it the first summer, but the above fragmentary fruiting specimens seem to represent it. Further it is not improbable, that the *D. rupestris* var. *parviflora*, Oliver, mentioned by Hart, Bot. Br. Pol. Exp., p. 25,

may belong to *D. subcapitata.* OLIVER does not mention any such plant in his List fl. pl., and I have not seen the specimens in the Nat. Hist. Mus., or at Kew, but HART's description decidedly points towards it. Indeed, he calls the flowers pale yellow, but as he says below that "the colours white and yellow are of no value in describing a species in these latitudes", this is of no consequence. If my supposition is right, the localities: North coast, Floeberg Beach and Grinnell Land, Alexandra Lake and Discovery Harbour, have to be added.

Distribution. This is very difficult to give, and I can only state its occurrence in the Arctic American Archipelago, Arctic America, Novaja Semlja and Spitsbergen, as quite certain. I have, however, seen specimens that probably belong to it, from East Greenland (not the *D. Martinsiana* of DUSÉN, Gefässpfl. Ostgrönl., p. 26, which, as specimens in the Stockholm collection show, is a *D. hirta,* that may be referred to var. *altaica*), Jan Mayen, Arctic Siberia, Sikkim. Further it probably grows in the Altai and other Asiatic mountains, and I think that it will also be found in more localities, when sought for and distinguished.

Draba nivalis, LILJEBL.

D. nivalis, LILJEBLAD, Svensk Fl., 1798, et N. Sv. Planta, etc.; GELERT, Not. Arct. Pl.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; SIMMONS, Prel. Rep. et Bot. Arb.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; NATHORST, Nya bidr.; KRUUSE, Jan May. *D. muricella*, WAHLENBERG, Fl. Lapp.; HOOKER, Fl. Bor. Amer.;

Fig. LILJEBLAD, N. Sv. Planta, etc., T. 2, fig. 2; Sv. Bot., T. 769; Fl. Dan., T. 2417; GELERT, l. c., fig. 18.

This plant is easily enough distinguished from other species except that there may be a rather strong resemblance between it and small forms of *D. hirta* var. *arctica.* It is not improbable, that the *D. muri-*

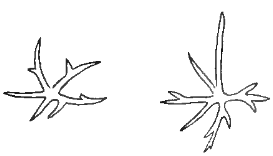

Fig. 4. Typical hairs from the leaves of *Draba nivalis.*

cella of HART, Bot. Br. Pol. Exp., p. 25, may be this species, but I have not seen specimens, and OLIVER, List fl. pl., does not mention it, nor does GREELY, Rep. It grew generally in the richer slopes, especially in the rookeries. It began to flower about midsummer and very soon stood with ripe pods.

Occurrence. Grinnell Land, Muskox Bay (?). Hayes Sound region: Twin Glacier Valley (4182); Fram Harbour, abundantly and flourishing at the "green patch" (657, 1090); Bedford Pim Island (1312, 4195). South coast: Fram Fjord (4201); Harbour Fjord, valley on Sir Inglis Peak (2162), Seagull Rock (2584), "green patch" at the anchorage; Goose Fjord, Wolf Valley (3959), Falcon Cliff (2872).

Distribution: East and West Greenland, Arctic America (not noted in the Archipelago), Labrador, Rocky Mountains to Colorado, Alaska, Land of the Chukches, Western Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Jan Mayen, Scandinavian mountains, Iceland.

Draba hirta, L.

D. hirta, LINNAEUS, Syst. Nat., Ed. 10, 1759; GELERT, Not. Arct. Pl.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; NATHORST, Spetsb. kärlv.; KRUUSE, Jan May.; *D. rupestris*, R. BROWN, in AITON, Hort. Kew., Ed. 2; LANGE, l. c., HART, l. c., ex p.; HOOKER, l. c.; LEDEBOUR, l. c.

Fig. Sv. Bot., T. 768, Fl. Dan. 2421, 2422; GELERT, l. c., fig. 15, 16.

I have not thought it necessary to enumerate all the many synonyms of this plant, as they are sufficiently treated of by GELERT, l. c. Especially, I can fully agree with him that the *D. rupestris* of ROBERT BROWN is nothing more than a small form of this species, but in two other instances I must dissent from him. As previously mentioned, the *D. rupestris* var. *altaica* of C. A. MEYER is really a form of *D. hirta* and does not belong to *D. fladnizensis*, but on the other hand *D. arc-*

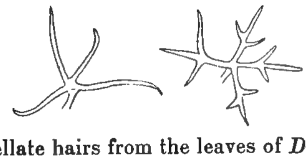

Fig. 5. Stellate hairs from the leaves of *Draba hirta*.

tica, VAHL cannot be separated from *D. hirta*, but must be placed as a variety of that species, into the long-hairy main form of which it merges through a complete series of intermediate forms.

Var. *arctica*, (J. VAHL) WATSON.

D. arctica, J. VAHL, Fl. Dan.; GELERT, l. c.; LANGE, l. c.; KRUUSE, l. c.; NATHORST, N. W. Grönl.; KJELLMAN, Sibir. nordk. fan. fl.; NATHORST, Nya bidr.; *D. hirta*, var. *arctica*, WATSON, Contr. Amer. Bot.

Fig. Fl. Dan., T. 2294, GELERT, l. c., fig. 17.

I must fully agree with WATSON's arrangement as to this plant. The species of VAHL is principally founded on two characteristics, viz.,

the style should be longer and more slender than in *D. hirta* and the covering should consist mainly of stellulate hairs. Among my material there are specimens that are entirely in accord with those of VAHL from Greenland and Spitsbergen, but in examining the whole material, I soon found that both characters are not always united. One may find forms with a short and dense covering, but having besides, almost sessile stigma, and, on the other hand, such as are covered with only simple or forked hairs, forming a more or less dense clothing but, notwithstanding, supplied with the long and slender style, which should belong to *D. arctica.* As a variety this may stand, and may comprehend the most short-haired forms of the species. So I have used the name for some of my specimens. The characteristic derived from the style is of no value whatever, as it will be different in the same individual.

Already before the middle of June, *D. hirta* was in flower, and was then found all through the summer both with flowers and fruit. It preferred slopes and especially rookeries and other richly-manured places but was also found in poorer localities.

Occurrence. Grinnell Land (and North coast?), Discovery Harbour (GREELY). That part of HART'S *D. rupestris* belongs here, I am sure, as I have seen specimens; but, on the other hand, he has confounded several plants under that name and, consequently, special localities cannot be given. The plant from Dobbin Bay (HART, l. c., p. 26) with pale yellow flowers is certainly no *D. hirta* (perhaps *D. alpina* var. *gracilescens*). Hayes Sound district: Skräling Island (4198), Fram Harbour (656, 1092). South coast: Fram Fjord (1642); Muskox Fjord; Goose Fjord at Falcon Cliff (2889), and in the rookery at Gull Cove (2894). Here also grew a f. *canescens,* which had a dense, and soft grayish hair-covering in stems and leaves, and had also rather hairy pods. The stems were short and coarse, and grew in dense tufts with the leaves very persistent (2897, 3880). At the Castle Point, I found a small, stunted form, with contracted inflorescence, which could perhaps be referred to var. *altaica,* C. A. MEY. (3962). Forms resembling the *D. rupestris* of ROB. BROWN, I have from Fram Fjord (4202) and from the "green patch" at the anchorage in Harbour Fjord (4207). Var. *arctica* was collected at Twin Glacier Valley (872, 874, 879), Skräling Island (1383), and Cape Viele (886) in the Hayes Sound region and at Fram Fjord (4200, an especially typical *D. arctica*; 4203), at the Barren Vallies (2399) and the "green patch" (2153, 2546) in the Harbour Fjord. According to GELERT, l. c., p. 307, it is also collected in Grinnell Land.

Distribution: All over the Arctic Regions and further in the Rocky Mountains, Alaska, Islands of the Bering Sea, Kamshatka, Baical Mountains, Altai, Ural, Scandinavian mountains, Scotland, Ireland, Faeroes, Iceland.

Draba borealis, DC.

This species is recorded by GREELY, Rep. The plant of DECANDOLLE, Systema II, p. 342, GELERT, rightly as far as I can judge, reduces to *D. incana*, L. But as that plant again is not found north of the Disco region in Greenland, and nowhere north of the continental coast of America, I think that the plant cannot be any form of *D. incana*, but perhaps a *D. hirta*.

Lesquerella arctica, (WORMSKJ.) WATSON.

Alyssum arcticum, WORMSKJOLD, Fl. Dan., 1820; *Vesicaria arctica*, RICHARDSON, App. Franklin. I, Ed. 2; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; *V. arenosa*, RICHARDSON, l. c.; *Lesquerella arctica*, WATSON, Contr. Amer. Bot.; KRUUSE, List E. Greenl.; BRITTON & BROWN, Ill. Fl.

Fig. Fl. Dan., T. 1520.

This species is rare in those parts of Ellesmereland that I visited, except perhaps in the interior of Hayes Sound, where I had no occasion to make collections during the best season. It was found in open clay fields with sparse vegetation. GREELY also speaks of it as doing best on stiff clay. It was found in bloom by him already on June 13, 1883. In September 1898, I saw it with ripe pods, but also with a few flowers left.

Occurrence. Grinnell Land: Discovery Harbour (HART! GREELY), Bellot Island (HART). Hayes Sound: (leg. FEILDEN!), abundant in the innermost part of Beitstad Fjord (489), and also at „Fort Juliane“ (672), a few specimens at the front of the Twin Glacier (877), and at the mouth of Flagler Fjord (891). South coast: Fram Fjord (1672, a single plant found); Barren Vallies in the Harbour Fjord (2401); Muskox Fjord, interior part (2150).

Distribution: Northern parts of Greenland, Arctic American Archipelago, Arctic America, Rocky Mountains. According to HOOKER, l. c. I, p. 48, also at Cordova in South America; and besides a variety occurs on Anticosti Island (BRITTON & BROWN, l. c. II, p. 138).

Cardamine pratensis, L.

C. pratensis, LINNAEUS, Sp plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Flow. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. Fl. Dan., T. 1039; Sv. Bot., T. 350.

In the only place where I found it, this species appeared in a very stunted form. The pairs of leaflets are generally only two, many leaves even have only the terminal leaflet developed. The leaflets, however, are broad, often almost circular, so that HOOKER's description of his *β angustifolia* which is found in some of the southernmost islands of the Archipelago, does not fit the Ellesmereland form. The plant does not flower in its northernmost stations (cf. also HART and KRUUSE, l. c.) and becomes more or less a submerse water-plant. In the only place where I found it, it grew in a pool with muddy bottom among *Carex aquatilis* var. *stans*, totally under water except for some of the leaves. As entirely reduced to vegetative propagation, it must have great difficulty in spreading.

Occurrence. Grinnell Land, Discovery Harbour (HART). Hayes Sound, Skräling Island in Alexandra Fjord (1350).

Distribution: Greenland, Arctic American Archipelago (only observed in a few of the South-eastern islands, flowering), Arctic and Temperate North America, islands of the Bering Sea, Arctic and Temperate Asia and Europe, Novaja Semlja, Spitsbergen, Faeroes, Iceland.

Cardamine bellidifolia, L.

C. bellidifolia, LINNAEUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.

Fig. Sv. Bot., T. 772; Fl. Dan., T. 20.

Sporadically over the regions visited, rarely in any abundance. It generally grew in somewhat moist, mossy places or also in wet gravel. In contrast to the last species, it would, in general, flower and fruit freely; I therefore suspect that the plant referred to *C. pratensis* by

Greely, Rep., p. 13, may perhaps rather be the present species, the more so as the locality mentioned, would further confirm this supposition. *C. bellidifolia* was found flowering about the end of June and with ripe fruit already before the end of the next month.

Occurrence. Grinnell Land, St. Patrick's Bay and Discovery Harbour (Hart). Hayes Sound region: Skräling Island (1371), Twin Glacier Valley (873), islet near Cape Viele (1347), Eskimopolis (845), Fram Harbour (1129), south side of Bedford Pim Island (1199). South coast: Fram Fjord (4184); Harbour Fjord in several places, specimens from Lake Valley (2477), Sir Inglis Peak (2161), Western entrance (2435); Goose Fjord, especially in the inner part (3185, 3484).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, alpine in the White Mountains, Rocky Mountains and California, Unalaschka, Pribilof Islands, St. Lawrence Island, Arctic and Eastern Siberia, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Scandinavian mountains, the Alps and Pyrenées, Iceland, Jan Mayen.

Eutrema Edwardsii, R. Br.

E. Edwardsii, Rob. Brown, Chlor. Melv, 1823; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Simmons, Prel. Rep. et Bot. Arb.; Greely, Rep.; Hooker, Fl. Bor. Amer.; Macoun, Pl. Pribilof; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Feilden, Fl. pl. Nov. Zeml.; Andersson & Hesselman, Spetsb. kärlv.
Fig. R. Brown. l. c., T. A; Fl. Dan., T. 2240.

Sporadically occurring in swamps, seldom in any greater number. Flowers found from the beginning of July. Ripe fruit in August.

Occurrence. Grinnell Land, Discovery Harbour (Greely). (Absent from Hayes Sound). South coast: Fram Fjord, in the western valley (1650); Harbour Fjord in several places, specimens from: Big Valley (2338), Spade Point (2416), "green patch" at the anchorage (2246), Barren Vallies (2395), Sir Inglis Peak (2187); Muskox Fjord, rather abundant in the great swamps of the interior part (2118, 2135); Goose Fjord, rather common in the interior part (3184, 3261).

Distribution: Greenland (only found in three widely-separated places, to the north of both coasts), Arctic American Archipelago, Arctic America, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Baical Mountains, Altai, Arctic Russia, Novaja Semlja, Spitsbergen.

Cochlearia officinalis, L. var. *groenlandica*, (L) GELERT.

C. groenlandica, LINNAEUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl., ex p.; *C. fenestrata*, ROB. BROWN, List of pl., et Chlor. Melv.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; HOOKER, Fl. Bor. Amer.; WETHERILL, List 1894; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml. *C. officinalis*, BRITTON & BROWN, Ill. Fl., ex p.; GREELY, Rep.; DURAND, Enum. pl. Smith S.; *C. officinalis* var. *groenlandica*, GELERT, in ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, List E. Greenl., et Jan May.
Fig. ANDERSSON & HESSELMAN, l. c., fig. 16, 17.

I have thought it best to accept the disposition of the *Cochleariae*, which is published by ANDERSSON & HESSELMAN, l. c., p. 34—40, who have had access to GELERT's figures and diagnoses, the results of his studies of the genus, which unfortunately were not completed in consequence of his premature death. I do not, however, presume that this view of the arctic *Cochleariae* will be standing for the future; there are doubtless, many "small species" within this form-series, constant forms, but having differences between them, which though easily distinguishable to the eye, are yet very difficult to describe. My friend Mr. OSTENFELD, who has for some years had rather a great number of *Cochleariae* from different places under cultivation, has shown me some such forms which are very interesting, and which show, that the plants are very little variable even under considerably altered conditions. At present, the disposition of GELERT, is surely the only one that can be used, but there is great difficulty in ascertaining the synonyms in literature for his forms. However I have tried to do so for the var. *groenlandica*, which is the most common in arctic regions and, farthest to the North, the only one as far as I can judge. In Ellesmereland as in most of the Arctic American Islands, there is no other one represented, only from a few stations to the South I have also seen var. *oblongifolia* and var. *arctica*. The present variety of *C. officinalis* is generally called *C. fenestrata* but probably there are also other *Cochleariae* understood by the same name.

In Ellesmereland, *C. officinalis* var. *groenlandica*, is a very common plant, but was most flourishing in the rookeries. It is one of the first plants which begins to flower, and throughout the summer, individuals in different states of development may be found. In the region here in question, the seeds seem generally to germinate immediately after getting out of the pods. Then a little rosule of leaves is formed, which will, in the following spring, very soon develop an inflorescence. Perhaps

also some individuals may attain to flowering already in the first summer, and thus become annual. Biennial, many individuals certainly are, as I have often seen them wither after the seed had ripened. Individuals which had stood in bloom in the autumn and continued their development in the next spring, such as KJELLMAN, Polarv. lif, p. 478–81, mentions from Pitlekaj, I have never seen, although I paid special attention to such individuals. I think it must have been a rather isolated case which KJELLMAN has observed, the more so as I have not found it in any other plant either. Flowers and inflorescences that had been surprised by the frost of the beginning of winter, would soon fade when they thawed, even though they appeared to be quite fresh. In some *Saxifraga* species this was often seen (cf. above).

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: St. Patrick's Bay, Watercourse Bay, Discovery Harbour (HART, GREELY). Hayes Sound region, common: specimens from: Fram Harbour (293, 1099, 1164), Cocked Hat Island (1270), Brevoort Island (1207, leg. FOSHEIM). Southern east coast: Cape Isabella, leg. HAYES according to DURAND, l. c., Cape Faraday (WETHERILL). South coast: common except for the Harbour Fjord, where it was only found in the Barren Vallies. Specimens from: Fram Fjord (1639), Goose Fjord (2871, 2892, 2988, 3483). West coast: noted at Reindeer Cove and Lands End.

Distribution: The present variety is spread all over the Arctic Regions, to the South in company with other varieties. The main species goes down into the Temperate Region, especially in Europe, where it is found even on the shores of the Mediterranean.

Papaveracea.

Papaver radicatum, ROTTB.

P. radicatum, ROTTBÖLL, Pl. Isl. Grönl., 1770; MURBECK, Hybr.; KRUUSE, List E. Greenl.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *P. nudicaule*, LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY Rep.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; *P. alpinum α nudicaule*, LEDEBOUR, Fl. Ross.; *P. alpinum*, HART, Bot. Br. Pol. Exp.; BRITTON & BROWN, Ill. Fl., non LINNAEUS.

Fig. ROTTBÖLL, l. c., T. 8, fig. 24; Fl. Dan., T. 41.

MURBECK has (l. c., p. 7—9), clearly shown that the name *P. nudicaule* which has been commonly used for our plant, cannot apply to it, but that the name *P. radicatum* must be used in its stead.

Probably however, there might also be separated several specimens within the form-series of *P. radicatum* as here understood. But as

the plant seems also to be very variable under different conditions of life, it must first be cultivated before the value of the different forms can be decided upon. Studied from herbarium specimens, or in their habitat, they seem to merge into each other without distinct limits, the form of the leaves, the depth of their incisions, the hairiness, the size and colour of the flower, the shape of the petals are all variable. It is most flourishing in the rich slopes (the "Urteli" of WARMING) and still more in rookeries and in the old Eskimo settlements, whereas in sandy plains, only stunted individuals are met with. The larger and more flourishing the tufts are, the more are the leaves incised, in dry places the leaves may become almost entire. In wet clay plains there is also a small form to be found, which is moreover distinguished by its rather small pale yellowish, or even quite white, flowers. As far as can be judged from specimens in the Nat. Hist. Mus., now put to *P. radicatum,* collected by HART at Discovery Harbour, this must be his "*P. alpinum* var." (l. c., p. 24), about which he writes: "the petals are often pale yellow, and occasionally white, and the hairs on the peduncle more adpressed. It was to be met with only at low levels and upon an inorganic soil, and its petals did not wither to a verdigris green as much as in the last variety". ("*P. nudicaule*"). I have also observed that the hairs of the flower-stalk are more adpressed in this form than in the big one of the richer soil, but as I got the impression that the distinguishing marks are not constant, I think it better not to establish a species but only a variety, which I will call var. *Hartianum,* n. var., in honour of its first discoverer. Among the typical forms of *P. radicatum,* there were also found in rather many places, individuals of a f. *schizopetala,* with more or less deeply incised petals; sometimes they were even cleft to the middle in many narrow lobes. It was, however, continually connected with the main form. The shape of the petals also would vary from almost broadly linear to rounded triangular, and their length from the same as that of the ovary, to the double of it. The colour varied from saffron, which was the rarest colour, to pure white, generally they were sulphureous.

The flowering-time begins about the middle of June and lasts to the setting in of the winter frost. Fruit and seed well developed.

Occurrence. North coast: Cape Alexandra, Ward Hunt Island, Cape Joseph Henry, Floeberg Beach (HART). Grinnell Land: Shift Rudder Bay, Discovery Harbour (HART, GREELY), stations along the coast to Princess Marie Bay (HART). Hayes Sound region, common; specimens from: Twin Glacier Valley (889), Lastraea Valley (887), Eskimopolis (844),

Cape Rutherford (310), Fram Harbour (287, 1414), Cocked Hat Island (1266), Bedford Pim Island (258). Southern East coast: Cape Isabella and Gale Point (DURAND), Cape Faraday (WETHERILL). South coast: common; specimens from: Fram Fjord (1617), Harbour Fjord (2231, 4197, the latter f. *schizopetala*), Goose Fjord (2879, 3329, 3646). West coast: along the Hell Gate to Lands End, between Eidsfjord and Baumann Fjord (2735, leg. BAUMANN), Coal Bay, Braskerud Plain (702, leg. ISACHSEN). Var. *Hartianum*: North coast and Grinnell Land (HART, specimens from Discovery Harbour!). Hayes Sound, recorded by HART, but not common, as it seemed to me. South coast, abundant in the Barren Vallies (2898) and also at the western entrance (2455) in Harbour Fjord; Ptarmigan Gorge (2997) and other places in the interior of the Goose Fjord.

Distribution: everywhere in the Arctic Regions (excl. Jan Mayen), Labrador, Rocky Mountains, islands of the Bering Sea, Kamshatka, Altai, Scandinavian mountains, Faeroes, Iceland.

Ranunculacea.

Ranunculus affinis, R. BR.

R. affinis, ROB. BROWN, Chlor. Melv., 1823; RICHARDSON, App. Franklin I, Ed. 2; LANGE, Consp. Fl. Groenl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer., excl. β et γ; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; NATHORST, Nya bidr.; *R. arcticus*, RICHARDSON, App. Franklin I, Ed. 1; KRUUSE, List E. Greenl.; *R. amoenus*, LEDEBOUR, Ic. pl. Fl. Ross.; FREYN, in ANDERSSON & HESSELMAN, Spetsb. kärlv.; *R. pedatifidus*, DAVIS, Ran. N. Amer.; BRITTON & BROWN, Ill. Fl.; non SMITH in REES, Cyclop. 29, nec HOOKER, l. c.; *R. auricomus*, FEILDEN, Flow. pl. Nov. Zeml.

Fig. HOOKER, l. c. I, T. 6; LEDEBOUR, Ic. pl. Fl. Ross., T. 113; Fl. Dan., T. 3029; Tab. nostra 4, fig 2–5.

It has been rather troublesome to ascertain which name the plant here in question should rightly bear. For a time I was inclined to think that it might be the *R. pedatifidus* of SMITH, described in REES' Cyclopedia, Vol. 29, which name, as already published in 1819, would then have to be preferred. This seemed the more probable, as an american author, who has in later times, especially studied the genus, DAVIS, l. c., had adopted that name. But, during my stay in London, I had occasion to see the original description as well as the specimen in the Linnaean herbarium from which it is made. Already on the perusal of the description I doubted whether the arctic american plant could be meant. Even though the description applied, in many points, fairly well to my specimens, there were yet some characters which did not correspond to it; for instance, when the stem was described as being "clothed with

long, soft, lax hairs", and the fruit as "obovate, seeds not very numerous, ovate, tumid, hairy, with short, awlshaped, reflexed beaks". Further the leaves are said to be "deeply cut, in a pedate manner into five, seven or more, narrow, linear, obtuse, elegantly radiating segments", which applies better to other allied species, than to that which I had in my collection. I had occasion afterwards, also to see the original specimens. There are in the herbarium of LINNAEUS, four individuals which doubtless belong to the same collection. On the paper is written in the handwriting of SMITH himself: "R. pedatifidus Sm. in Rees' Cyclop. n. 72", and at one plant there is a sign *, which seems to be older than the label of SMITH and here is added "Siberia" (in pencil by SMITH)).

Now the original specimens, as well as the description, show that SMITH has had in view, a plant very nearly allied to that which BROWN soon after described from Melville Island. There are, however, some differences, that seem sufficient to separate the latter plant from that of SMITH. The characters that especially separate *R. pedatifidus* from *R. affinis* are: the almost circular circumference of its basal leaves, that are very deeply cut in a great number of very narrow, or almost entirely linear, segments, with obtuse points, evidently grouped after a pedate design, with a smaller middle, and two larger lateral, main lobes. The middle lobe is only equipped with two lateral secondary lobes halfway from the base, and these show a tendency to be again cleft. The lateral lobes are deeply cut into at least three or four secondary lobes, that only cohere a little above the basis, and are again deeply cleft. The leaf is thus formed of a great number of narrow, or almost filiform, segments. The basal leaves are more or less equipped with sparse white hairs. The stem leaves are sessile or have a very short peduncle. The lower ones resemble the basal leaves, but their segments are longer, do not stand so close together, and become fewer in the upper leaves, finally being only three. The sheath of the stem leaves half-embracing, not so white-membraneous as in *R. affinis.* The plant is smaller and more slender in all parts, the flowers are not inconsiderably smaller. The white hair-covering of the stem is more prominent, and not reduced only to the parts immediately below the insertions of the leaves. Especially the part of the stem below the lowest leaf is hairy. The flower-stalk is, in the dried specimens at least, prominently canaliculate.

The true *R. pedatifidus,* SM. is, as far as I know, only found in Asia, especially in Eastern Siberia and also in the islands of the Bering Sea. A very imperfect specimen of CHAMISSO in the Kew herbarium,

probably belongs to it, but I have seen no other american specimen of it. The american authors who use the name, have as it appears, confounded other species with it. In the herbarium of J. E. SMITH, which I have also seen in the Linnaean Society, there lies a small fragment of a *Ranunculus* labelled in SMITH's own handwriting: "Ranunculus affinis, Melville isld. — Hort. Soc. 1824" and also "R. pedatifidus SM. in Rees' Cycl. n. 72? vide H. L." (herb. Linn.). Now this fragment consists only of a flower, and a bit of the stem with two leaves, but that it does not belong to *R. pedatifidus* is to be seen by the almost entirely sheathing leaves, with the broad white membraneous margin of the sheath. The flowers also are much smaller. The ? of SMITH doubtless shows, that he has not thought it to be quite identical with his own species. To the Melville Island plant, I shall soon come back, but it must first be seen what HOOKER, l. c. I, p. 18, and T. 8, B, has understood by the name *R. pedatifidus*. At the first glance, the figure shows that here quite another plant is meant, which stands rather far from the whole *auricomus*-group. I have also seen specimens of that plant, determined by HOOKER himself, which make it quite apparent, that it is rightly to be placed where HOOKER has it, viz., in the neighbourhood of *R. nivalis*. How HOOKER, who must have had access to the Linnaean herbarium, could confound this with *R. pedatifidus*, I am at a loss to understand. It is a Rocky Mountain plant, collected by DRUMMOND between 52° and 55°, and should be sought for again and more closely studied, as it seems not to have been examined by later writers; I have, however, seen too little of it, to be able to give any particulars about it.

As now the name *pedatifidus* is out of the question for our plant, it remains to examine whether the name *R. affinis* or any other of later authors, is the right one for it. In ANDERSSON & HESSELMAN, l. c., p. 50—53, FREYN has given an explanation, concerning the Spitsbergen plant, which has usually gone under the name *R. affinis* or *R. arcticus*. His exposition is, however, so indistinct, and in some parts even so preposterous, that he only makes the already rather difficult question concerning the synonyms of the *auricomus*-section still more puzzling. In his second group, FREYN enumerates: "*R. pedatifidus* SM., *R. amoenus* LEDEB., *R. arcticus* RICHARDS. (*R. dahuricus* TURCZ.) und ein Theil der als *R. auricomus* v. *sibiricus* GLEHN bezeichneten Formen — alle, wie jene der Gruppe des *R. auricomus*, behaartfrüchtig, nur *R. arcticus* kahlfrüchtig". In his third group are to be found: "*R. affinis* R. BR.,

R. ovalis RAF., *R. rhomboidalis* GOLDIE, durchaus nord-amerikanische Arten".

As may be seen from this, FREYN keeps as separate species, several forms which are generally put together, and, as will be shown below, even such as have not been upheld by their authors themselves. *R. arcticus* is said to be an older name for *R. dahuricus,* TURCZ., but in LEDEBOUR, Fl. Ross. I, p. 732, the latter name is referred as a synonym to *R. pedatifidus,* SM., with the addition "ex ipso". This is a question I cannot solve, not having seen the specimens of TURCZANINOW, but it is of less interest here. The Spitsbergen *R.* **Wilanderi,* NATH. is referred to *R. arcticus,* but the other Spitsbergen form commonly known as *R. affinis* or *R. arcticus* is declared to be "der echte *R. amoenus* LED." and "mit dem *R. amoenus* LED. vom Originalstandorte an der Kaja bei Jakutsk derart identisch, dass kaum die Individuen von einander unterschieden werden könnten". In the first place, this is not the original locality of LEDEBOUR's species, as neither in Ic. pl. Fl. Ross. nor in Fl. Alt., are any other localities mentioned than a few in the Altai besides Nertschinsk in Transbaicalia; more northern localities are first added in Fl. Ross. I, p. 37, where LEDEBOUR has himself referred his *R. amoenus* as a synonym to *R. affinis,* R. BR. It seems as if more of the many "Originalpflanzen meines Herbars", that FREYN mentions, are of the same doubtful value. The real original specimens of LEDEBOUR's species are, consequently, from the Altai, and it may probably be assumed, that specimens in the Copenhagen herbarium, collected in the Altai by BUNGE and labelled "dedit Bunge" or "misit Ledebour", belong to them.

But these are not entirely similar to the Spitsbergen plant, even if the differences, somewhat smaller flowers and a more prominent hairiness (which is also to be seen in the figure of LEDEBOUR quoted above), may not give it a right to any more prominent place than that of a variety of *R. affinis.* FREYN also is forced to admit that the hairiness is the only difference. He speaks especially of the hairiness of the fruit (*R. arcticus* should have glabrous achenes), but it is admitted that the value of this character is not to be over-estimated (l. c., p. 51). This is again maintained (p. 53), where it is said: "*R. amoenus* LED. . . . ist daher wohl nicht anderes als behaartfrüchtiger *R. arcticus*". This may be quite right, the more so as the latter species has not quite glabrous fruits either. But when it is declared, that *R. arcticus* is "sibirisch-dahurisch-spitzbergisch und jedenfalls auch in Novaja Semlja zuhause" contrary to the American *affinis*-group, this is quite absurd, as *R.*

arcticus is established by RICHARDSON on specimens collected during the first Franklinexpedition.

As already mentioned, FREYN puts *R. affinis* together with a couple of American species with rather small flowers and less divided basal leaves, than has that plant, which for him stands as *R. arcticus*, in other words, his *R. affinis* seems to come nearest to the form figured by HOOKER, l. c., T. 6, as *R. affinis* β. Such forms seem to be widely spread in arctic as well as in temperate North America, and as they have been taken for the type of the species, they have been the cause of the wrong conception which DAVIS (l. c.) and BRITTON & BROWN (l. c. II, p. 77) have formed of ROB. BROWN's species. The original description (Chlor. Melv., p. 7) runs thus: "*Ranunculus affinis*, foliis radicalibus pedato-multifidis petiolatis; caulinis subsessilibus digitatis; lobis omnium linearibus, caule erecto 1—2 floro cum calycibus ovariisque pubescentibus, fructibus oblongo-cylindraceis, acheniis rostro recurvo. Obs. R. auricomo proxima species".

This perhaps is not very satisfying, but there is in it at least, something which shows that BROWN has not had the β or γ of HOOKER in his mind, viz., "foliis radicalibus pedato multifidis". I have also seen the original specimens from Melville Island, that belong to the same plant as is found in Spitsbergen, Greenland and Ellesmereland as well as southward in America, and which is well represented by the figure T. 6, α, of HOOKER. Consequently that is the true *R. affinis*, whatever HOOKER's β and γ may be. I have not as yet had an opportunity of inquiring thoroughly about their place, but I am inclined to think that most probably they belong to *R. rhomboideus*, GOLDIE. Perhaps also there is a species overlooked which, even if spread principally further south, reaches as far also into the Arctic Region as Melville Island. Of this plant, with smaller flowers and less deeply cut basal leaves, I have seen many specimens from the continent; from Melville Island only the fragment in the herbarium of J. S. SMITH mentioned above. There were none in the Nat. Hist. Mus. or at Kew, notwithstanding that HOOKER records only those forms from Melville Island. They were represented in RICHARDSON's and other collections from the arctic shore of the continent, and were perhaps included in the *R. arcticus* of RICHARDSON, even though he has *R. rhomboideus* besides it in his list.

The name *R. arcticus* was first used by RICHARDSON in App. Franklin I, Ed. 1, 1823, that is to say the same year as that in which the Chloris Melvilliana of R. BROWN appeared, but in the second edition

of FRANKLIN's narrative, RICHARDSON cancels his first name and uses that of ROB. BROWN. This may perhaps show, that the Chlor. Melv. was printed first, and that RICHARDSON therefore accepted the name given by BROWN instead of that he had established himself. That both authors described the same plant is evident, notwithstanding that FREYN has placed *R. arcticus*, RICH. and *R. affinis*, R. BR. in different groups, and we must follow RICHARDSON in accepting the latter name.

I think, however, that a new description, formed after my Ellesmere-land specimens, may not be out of place.

R. affinis: perennis, plus minusve caespitosus, caule 15—25 cm. alto, glabro vel pilis parcis, subadpressis, brevisque, inferne longioribus, obsito; folia basalia longe petiolata, vaginis latis, membranaceis, albis, instructa, semper profunde pedatifida, petiolis parce pilosis; folia caulina brevissime petiolata vel sessilia, late membranaceo-vaginata, marginis vaginae pilis longis albis instructis, pedato-multifida, lobis 5—9 angustis, acutiusculis; flos 2—3 cm. latus; sepala purpurascentia, parce pilosa, petalis dimidio breviora; petala flava, violaceo-nervata, obovata; torus cum carpellis per anthesin ovatus, postea cylindraceus; achenia parce pilosa, rostro brevi recurvo.

Grows somewhat caespitose, the stems and leaves are surrounded by old ones from the last year, or at least by the remainders of old sheaths. The stems are stiff, erect, about twice as high as the leaves, almost entirely glabrous simple, single-flowered, or branched, with 2 or more flowers, more or less canaliculate. The basal leaves are long and slender-petiolate, with broad white, membranaceous sheaths; their circumference is kidney-shaped — broad-ovate, always more or less deeply cleft in a pedate manner. Generally a middle lobe and two lateral ones may be discerned, often the latter are again cleft almost to the basis, so that the leaf becomes nearly cleft in five. The middle lobe is entire, narrow lanceolate, or with two more or less pronounced secondary lateral lobes about 1/3 below the point. The two first lateral lobes may be cleft in rather many segments, but these are never quite linear, nor are they obtuse as in *R. pedatifidus*. The petiole is hairy with long, sparse, white hairs, likewise the lower part of the stem, below the first stem leaf. The stem leaves are short-petiolate or sessile, with a broad white sheath having a rim of long white hairs; they are deeply cleft, almost to the base, in several (generally 7 or 9) narrow segments which, however are hardly quite linear and always pointed. Also here the pedatifid manner of segmentation may easily be seen, even if not so sharply defined as in the basal

leaves. The uppermost stem leaf sometimes has only three lobes. The stem leaves and young basal ones are often minutely hairy. The peduncle is clad with whitish, somewhat adpressed short hairs, as also the sepals, that have a touch of purple or violet. They are pointed outwards or downwards in the open flower and soon fall. The flower is rather large, often over an inch broad. The petals are rather pale yellow, delicately veined in violet or purple at the back, broadly obovate, with rather long claw. The stamens are rather few. The head of pistills is nearly ovate in the flowering state, but later, the torus is stretched so as to become cylindrical at least in the terminal, best-developed flower, where the pistils are very numerous. This is an essential character, which separates *R. affinis* from *R. auricomus* and as far as could be judged, from the rather young specimens in the Linnaean herbarium also from *R. pedatifidus.* The achenes are somewhat oblique, a little compressed, indistinctly keeled, sparsely and shortly hairy (in my specimens, but this character is variable, especially the asiatic form *amoenus* has them densely hairy). The beak is short, rather coarse, and curved backwards.

The only time I found this species, August 8, 1900, it bore flowers as well as fruit in all stages abundantly. It grew in rock ledges below a nesting place of the glaucous gull, in a southern exposure and in richly manured soil. I am inclined to think, therefore, that the *R. affinis* which GREELY, Rep., p. 12, mentions as growing in moist, loamy soil, can hardly be the right one. It would also be very curious, if such a conspicuous plant, which must immediately catch the eye, had escaped HART. Now, indeed, HART records a "*Ranunculus auricomus,* L. (*R. affinis,* BR.)", but as he also refers to it the "*R. nivalis*", "floribus minoribus, pilis calycinis pallidioribus" of OLIVER (List fl. pl.), and moreover refers also a plant from Disco to it, I think that none of these statements can be right. LANGE, l. c. II, p. 255, says about the Disco specimens, "e descriptione non cum R. affinis R. BR. convenire, sed R. nivalis proximus esse videtur", which doubtless is right, as no *affinis* specimens from Disco exist in London, and the variety of OLIVER is, in fact, *R. Sabinei,* R. BR. as the specimens show.

Occurrence. South coast: Seagull Cliff in the Harbour Fjord (2595).

Distribution. This is rather difficult to give, because of the muddled synonymic, the species, however, seems to be found in the following countries: Northern East Greenland, West Greenland (only in Isortok and Foulke Fjords), Arctic American Archipelago (specimens

seen from: Kingnite, Cumberland Sound (TAYLOR) in Baffinland; Melville Island; Mercy Bay (MIERTSCHING) in Banks Land, Cambridge Bay (ANDERSSON) in Victoria Land; Arctic America (specimens collected by BACK and RICHARDSON seen); Rocky Mountains (specimens seen: JOHN MACOUN n. 34, Morley, Foothills of Rocky Mountains, 1885; Lat. 39°—41°, No 15, E. HALL and J. P. HARBOUR, colls. 1862; other American localities I dare not to refer to it); Arctic Siberia, Altai, Novaja Semlja (I refer here also FEILDEN's *R. auricomus*, notwithstanding what is said about the round head of fruits (l. c., p. 7) as a single round one may be formed also from a feeble axillary flower of *R. affinis*, and as all Novaja Semlja specimens which I have seen belong to the latter plant), Spitsbergen.

Ranunculus sulphureus, SOLAND.

R. sulphureus, SOLANDER, in PHIPPS, Voy. N. Pole, 1774; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; KJELLMAN, in Vegaexp.; FEILDEN, Fl. pl. Nov. Zeml.; MALMGREN, Spetsb. Fan. Fl.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; HARTMAN, Skand. Fl.; *R. nivalis* var. *sulphureus*, LEDEBOUR, Fl. Ross.; GREELY, Rep.; *R. nivalis β*, HOOKER, Fl. Bor. Amer.; R. BROWN, Chlor. Melv.; *R. nivalis*, DAVIS, Ran. N. Amer., ex p.; *R. altaicus*, LAXMAN, Descr. plant. Sibir., 1774; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; LEDEBOUR, Fl. Ross.

Fig. LAXMAN, l. c., T. 8; Suppl. Fl. Dan., T. 82.

This species indeed, has a rather great resemblance to *R. nivalis*, L., which makes it, in early stages or small individuals, somewhat difficult to distinguish. It may, however, generally be separated even then, by its stiff, erect, mode of growth, by the generally somewhat larger flower, and by the basal leaves, which are not so much incised, and have more obtuse lobes. Moreover, *R. sulphureus* is generally more hairy in peduncle and sepals. In fruiting state it can always infallibly be recognised by its almost orbicular head of fruits and by the torus, which is covered with coarse brown hairs between the carpels. These hairs, in living specimens at least, can also be seen already in earlier stages, if the pistils are carefully removed. In dried specimens in a flowering state, it is not always easy to make this principal character visible, and in this, I think, the cause is to be sought for the fact that authors who have only studied the plant in question from dried material, will so often put it under *R. nivalis*, whereas those who have had an opportunity of studying it from nature, in most cases have separated them. MALMGREN, l. c., also dwells with astonishment upon

the fact, that so many authors have not recognised *R. sulphureus* as a species.

About the relation to *R. altaicus*, LAXMAN, l. c., p. 533, MALMGREN says: "*Ran. frigidus* WILLD. (*R. altaicus* LAXM.) petalis obcordatis carpellis stylo subduplo longioribus a *R. sulphureo* differt". I have also seen such forms with somewhat emarginate petals, and even with 3-cleft ones (n. 2849 and 3328), which makes me still less inclined to accept *R. altaicus* as a separate species, at the most it may stand as a variety. The shape of the petals as well as the length of the beak is variable both in *R. sulphureus* and in *R. nivalis*, so that no specific characters can be taken from them. I have also seen specimens of *R. altaicus* in the Copenhagen herbarium, collected in the Altai, and communicated by LEDEBOUR, which are hardly different from arctic ones. The figure of LAXMAN, l. c., is rather good and might perhaps be an inducement to give the preference to his name, which is from the same year as that of SOLANDER, but I have retained, the latter as being the one more commonly used.

The principal habitat of *R. sulphureus* was in swamps and along brooks often in the water, sometimes, however, it would also occur in somewhat drier mossy places where *R. nivalis* generally grew. The resemblance between them may have caused some wrong classifications in the field, and therefore I only enumerate such localities where specimens were taken or where I am certain that *R. sulphureus* appeared. Flowers from the middle of June and fruits abundantly.

Occurrence. Grinnell Land, Discovery Harbour (GREELY). Hayes Sound territory: Skräling Island (1369), Cape Rutherford (316, 1152), Fram Harbour (1095, 1127). South coast: Fram Fjord (1661); Harbour Fjord, here and there, specimens from Sir Inglis Peak (2449); Muskox Fjord (2118, 2145); Goose Fjord, several places in the interior, specimens from Bottom valley (3265), Gallows Point (2993), table land on the West side (3328), East of 3rd winter quarters (3180, 3354, 4225), Midday Knoll (3648), Yellow Hill (3593), 4th winter qarters (3931), valley inside the Castle Rock (3949). West coast: Lands End (2849).

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Rocky Mountains, Pribilof Islands, Arctic Siberia, Baical Mountains, Altai, Novaja Semlja, Spitsbergen, Franz Joseph Land, Finmark.

Ranunculus nivalis, L.

R. nivalis, LINNAEUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp., ex p.; HOOKER, Fl. Bor. Amer., ex p.; BRITTON & BROWN, Ill. Fl. (ex p.?); DAVIS, Ran. N. Amer., ex p.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross., excl. β; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. LINNAEUS, Fl. Lapp., T. 3, fig. 2; Sv. Bot., T. 394; Fl. Dan., T. 1699.

However difficult this species may be to distinguish from the last one when both are young, it is easily discerned even at a distance, in the fruiting stage. The stems then spread outwards, and become assurgent, whereas those of *R. sulphureus* always are stiff and erect. To the characters of the head of fruits and the torus previously mentioned may also be added, that the achenes are smaller, thinner, and have a considerably longer beak. The basal leaves are at least twice cleft, and the segments more pointed than in the latter species. The flowers perhaps are a little paler yellow than in *R. sulphureus*, but never white, as recorded by BRITTON & BROWN, l. c. II, p. 76, so long as they are fresh, when fading, however, they will often become almost white. Also in badly dried specimens they may get whitish; such it may be that have caused the wrong statement.

Found in flower about the end of June and fruiting in August. Generally growing in mossy soil, which dries up during the summer, often in company with *Draba fladnizensis*.

Occurrence. North coast: Floeberg Beach (leg. FEILDEN!). Grinnell Land, Discovery Harbour (HART!), other localities uncertain as HART has confounded it both with *R. sulphureus* and with *R. Sabinei*. Hayes Sound region probably not common, specimens only from Bedford Pim Island, in the slope towards Rice Strait (696). Probably overlooked in other places because of the likeness to *R. sulphureus*; also recorded by HART. Southern east coast: Gale Point (DURAND). South coast; rather common: Fram Fjord (WETHERILL, 1618), Muskox Fjord (2134, 4223), and especially in the Goose Fjord, East of 3rd winter quarters (3354, 3491, 4224), Yellow Hill (3580), 4th winter quarters (4226), Falcon Cliff, and other places. West coast: Reindeer Cove, between Eidsfjord and Baumann Fjord.

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Iceland.

Ranunculus Sabinei, R. Br.

R. Sabinei, R. Brown, Chlor. Melv., 1823; Hooker, Fl. Bor. Amer.; Simmons, Prel. Rep. et Bot. Arb.; *R. Sabinei affinis,* Durand, Pl. Kan.; Lange, Consp. Fl. Groenl.; Nathorst, N. W. Grönl.; *R. nivalis* var., Oliver, List fl. pl.; *R. auricomus,* Hart, Bot. Br. Pol. Exp., ex p.; ? *R. pygmaeus* var. *Sabinei,* Davis, Ran. N. Amer.

Fig. Tab. nostra 3, fig. 2–8.

Even if the description of Rob. Brown (l. c., p. 6): "foliis radicalibus elongato-petiolatis tripartitis; lobis ellipticis; lateralibus semibifidis; caulinis sessilibus tripartitis linearibus, calycibus hirsutis petala retusa subaequantibus" is rather short, it applies so well to the plant here in view, that I cannot hesitate to classify my plant under that name, moreover as it cannot possibly be referred to any other arctic species. Indeed, it shows certain resemblances on the one side to *R. nivalis,* on the other to *R. pygmaeus,* and Brown himself pronounces it to be standing between them, but it differs from both, in the characters stated by him as well as in others, which will be stated below.

Hooker, l. c. I, p. 17, quotes Brown with the addition, that the species is also brought home from the continent by Richardson, as there were in his collection of *R. pygmaeus* a few individuals of larger size than the rest, and quite agreeing with Brown's description of *R. Sabinei.* He also adds, that "they seem indeed almost to form a connecting link between *R. pygmaeus* and *R. nivalis*". Later Durand, l. c., p. 185, has mentioned a *Ranunculus* from the collection of Kane, found in "dry levels" at Bedevilled Reach, 79°, of which he thinks that it "might be *R. Sabinei* R. Br". The description he gives of it is such, as to make it quite clear, that in fact no other species can be meant, but nevertheless, Lange, l. c., p. 56, has uttered a doubt about the classification, and thinks that Kane's plant ought perhaps to be put together with the "*R. auricomus*" of Hart, l. c., under *R. nivalis* (cf. above p. 110, and Lange, l. c. II, p. 255). This may be right enough as far as Hart's Disco specimens are concerned, but his plant from Grinnell Land, which is identical with Oliver's *Ranunculus nivalis* "var. floribus minoribus, pilis calycinis pallidioribus" is the true *R. Sabinei,* as I have had the opportunity of making sure of, by seeing the specimens at Kew and in the Nat. Hist. Museum. Of the original Melville Island plant, I have only seen a single specimen, in a small collection preserved in the Linnaean Society, in the other herbaria I could find no specimens from the first Parry expedition. Neither have

I seen specimens from the FRANKLIN expeditions, nor of KANE's plant, but they must certainly be referred to this species.

Lastly DAVIS, l. c., p. 489, has a var. *Sabinei* of *R. pygmaeus*, which is, however, only recorded from Montana. The description: "Flowers larger than the type; sepals hairy", agrees indeed with *R. Sabinei*, but is all too scanty for deciding if really that specimens is meant. It is, however, not improbable, as I have seen species of *R. Sabinei* (called *R. glacialis!*) from "Sequoia region, Alpine County, Carson Spur, 8500 f., 1893, Geo. Hanson" in the Kew herbarium.

The true *R. Sabinei*, however, is no form of *R. pygmaeus*, or of *R. nivalis* either. It is sufficiently different in characters from both, and further, it has in Ellesmereland, its own range, where no *R. pygmaeus* is found. Its habitat also is different from that of the latter species. According to Ellesmereland specimens, of which I have a rather good material, the description may be formed as follows:

R. Sabinei: humilis, tempore florendi 1—3 cm. altus, 1 (—3) florus; folia radicalia 3—5, longe petiolata, triloba, lobis lateratibus bifidis, longe ciliata, vaginis albis instructa; folia caulina sessilia vel brevissime petiolata, vaginantia, profunde tripartita, lobis lanceolatis obtusis; pedunculus cum sepalis pilis albis hirsutus, sepala violascentia, petala pallide flava; flores quam in *R. nivali* multo minores; petala sepala paulo superantia; torus per anthesin cum carpellis rotundatus, postea elongatus, capitulum fructuum fere cylindraceum.

R. Sabinei is a small, low plant, simple or somewhat caespitose; the few basal leaves (generally 3—5) lie prostrate outspread on the ground and surround the flower, when it first opens; later, the petioles are stretched as well as the stem, which will then reach considerably over the leaves. The lamina of the basal leaves is cuneate at the bases, 3-cleft, often having the lateral lobes more or less deeply incised; the middle segment, as is often also the inner, larger part of the lateral ones, broad lanceolate; all are obtuse. Basal leaves with broad white sheaths. Stem leaves (the lowest included) sessile or very short petiolate, with a very short, but broad, white sheath, deeply 3-cleft, with lanceolate, obtuse segments. Petioles and margins of the leaves with sparse, long hairs. Stem at the beginning of the flowering only 1—2 cm. long, afterwards growing to 10 cm. in the fruiting stage, feebly striate, in the lower part sparsely hairy like the petioles. Peduncle densely hairy. The whole stalk at the ripening of the fruit stiffly erect, not assurgent as in *R. nivalis*, nor arched as in *R. pygmaeus*. The flowers are considerably larger than in the latter species — almost as large as in a

small-flowered *R. nivalis*, but paler yellow than in that species. Sepals more or less touched with violet or purple, covered with long white hairs, not turned down and rather durable. Petals of the same length as the sepals, or at most one third longer, narrow obovate or even narrow obcordate, when they are emarginate. The head of fruits is at the beginning nearly spherical, later, during the development of the fruit, it becomes conical or almost cylindrical. The achenes are short, thick, more or less tapering towards the base, with a short beak.

From small forms of *R. sulphureus* and *R. nivalis*, the present species is easily distinguished[1] by its pale flowers, the white hairy sepals and peduncle, the short and narrow petals, and by the form and the ciliation of the leaves. From *R. pygmaeus*, it differs in the hair covering of the stem and petioles, as well as of the peduncle and sepals, in its much larger flowers and longer petals, and in the stem, which is erect even in the fruiting stage, when that of *R. pygmaeus* is bent archlike towards the ground or lies prostrate. Also the head of fruits of the latter is more rounded, and the achenes are longer beaked.

R. Sabinei prefers the fields of stiff clay, that are so widely distributed along the south-western fjords. It flowered rather late, at least in 1901, when I had the best opportunity of observing it, and only few developed fruits were seen, but as HART speaks of it as flowering earlier in Grinnell Land than „the true *R. nivalis*", that may be set to the account of the unfavorable summer of 1901.

Occurrence. North coast: Dumbbell Bay, Floeberg Beach and other places (leg. FEILDEN!). Grinnell Land: Discovery Harbour (leg. HART!). South coast: Muskox Fjord (4227, 4228); inner part of the Goose Fjord, Yellow Hill (3788), East of 3rd winter quarters (4229,

[1] My friend Professor LAGERHEIM of the Stockholm University, has sent me a few specimens of an interesting *Ranunculus*, found by him on Akselfjeld near Svendborg, at Målselven, Norway, wich he had at first taken for *R. Sabinei*, to which it indeed shows a certain resemblance. After seeing some of my *R. Sabinei* specimens, however, he had to alter this classification, and later he sent me the specimens, that were collected in the locality mentioned, August 13, 1893, and were still found in full flower, when *R. nivalis* and *R. pygmaeus* which also grew there, were everywhere in fruit.

The plant indeed, considerably resembles *R. Sabinei* but yet differs in some important points (shape of the leaves, colour of the hair-covering, &c.). It comes most near to *R. nivalis*, but I am most inclined to refer it to the hybrid between that species and *R. pygmaeus*, which J. M. NORMAN has recorded from the same neighbourhood. It agrees well with his description of the hybrid (Florae arcticae Norvegiae species et formae, &c., Kristiania Vid. Selsk. Forh., 1893).

4230), Gallows Point (3787), Ptarmigan Gorge (3334). West coast: Lands End (2849).

Distribution: North-Western Greenland, Arctic American Archipelago, Arctic shores of America between Coppermine and Mackenzie Rivers, Rocky Mountains.

Ranunculus pygmaeus, WAHLENB.

R. pygmaeus, WAHLENBERG, Fl. Lapp., 1812; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; SIMMONS, Prel. Rep et Bot. Arb.; HOOKER, Fl. Bor. Amer.; MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May. *R. nivalis β*, LINNAEUS, Sp. plant.

Fig. LINNAEUS, Fl. Lapp., T. 3, fig. 3; WAHLENBERG, l. c., T. 8, fig. 1.; Sv. Bot., T. 748; Fl. Dan., T. 144.

As already mentioned, there is a considerable resemblance between this species and the last mentioned one. I have seen *pygmaeus*-specimens from Spitsbergen and Novaja Semlja, for instance, that were rather like *R. Sabinei* in habit, but on closer examination, the characters of that plant were lacking. It may also be possible, that in places where *R. pygmaeus* and *R. nivalis* grow together and hybridize, some forms of the hybrid have been taken for the former species. The figure (1605) in BRITTON & BROWN, Ill. Fl. II, p. 76, as also their description, differs from the european and arctic *R. pygmaeus* in recording the petals as being longer than the sepals. Perhaps it is schematic, not made from one specimen, but it may also be that the american (not the arctic) *R. pygmaeus* is somewhat different from the european form, as is the case with rather many american species. In my specimens, as in all others that I have seen, the petals are, at most, of the length of the sepals, generally shorter.

R. pygmaeus grows in wet places among moss, somewhat caespitose. I have not noted when the flowers first appeared, but flowers were found until the autumn, together with the ripe fruits.

Occurrence. Only found on the East coast, along the ponds on the north side of Fram Harbour (452, 1097, 1410) and at Cape Faraday (WETHERILL).

Distribution: East and West Greenland (not found elsewhere in the Arctic American Archipelago), Arctic America, Labrador, Rocky Mountains, Alaska, Unalaschka, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Jan Mayen, Northern Scandinavia, central European mountains, Iceland.

Ranunculus hyperboreus, ROTTB.

R. hyperboreus, ROTTBØLL, Pl. Isl. Grönl., 1770; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. ROTTBØLL, l. c., T. 4, fig. 16; Sv. Bot., T. 710; Fl. Dan., T. 331.

Rather variable as to the length of the internodes and petioles, doubtless in connection with the station. Also the shape of the leaves varied from cuneate to square or even somewhat cordate at the base and from almost entire to 3-cleft with more or less incised lateral lobes. I have several times seen it with developed fruits, notwithstanding the fact that it propagates principally by vegetative shoots, but open flowers I sought for in vain. The floral buds as well as the heads of fruits were always submerse, and consequently I think that it must here be cleistogamous and the pollination must take place under water.

R. hyperboreus was a rather rare plant in small lakes and ponds or other wet localities.

Occurrence. Hayes Sound region: Skräling Island in Alexandra Fjord (1341), Lakes of the "Rutherford-eide" (1153), Fram Harbour (294, 1161). South coast: western valley in Fram Fjord (1654), Spade Point in Harbour Fjord (2419), swamps in the valley at the bottom of Goose Fjord (3260).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Himalaya, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Iceland.

Caryophyllaceae.

Arenaria ciliata, L.

A. ciliata, LINNAEUS, Sp. plant., 1753; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; BRITTON & BROWN, Ill. Fl.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. Fl. Dan., T. 346, 1269.

The Ellesmereland specimens are soonest to be referred to f. *humifusa*, (WAHLENB.) HARTM., that is to say the same in which the species occurs in Greenland. It was very small, and grew in its only

locality among moss and lichens, so as to show almost only the flower. The prostrate stems crept among the moss, only the flowering shoots reached a little above it. Found flowering August 8, 1900.

Occurrence. South coast: only in a limited area between Spade Point and Seagull Rock in the Harbour Fjord (2575).

Distribution: Northern East Greenland, Northern Danish Greenland, Boothia Felix (? a specimen from Ross's second voyage 1829—33 in the Nat. Hist. Mus.), Labrador, Canada, Northern Russia, Novaja Semlja, Spitsbergen, Northern Finland and Scandinavia, mountains of Central and Southern Europe, Ireland, Iceland.

Alsine Rossii, (R. Br.) Fenzl.

Arenaria Rossii, R. Brown, Chlor. Melv., 1823; Hooker, Fl. Bor. Amer.; *Alsine Rossii,* Fenzl, Verbr. d. Alsin.; Lange, Consp. Fl. Groenl.; Simmons, Prel. Rep. et Bot. Arb.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; *Arenaria groenlandica,* Hart, Bot. Br. Pol. Exp.; Greely, Rep. (?); non Fenzl.

Fig. Tab. nostra 6, fig. 4—6.

My specimens fully agree with the description of Rob. Brown, l. c., p. 14. The plant is very apt to catch the eye, as its individuals, forming high, compact, pulvinate tufts, usually of a semiorbicular shape, are spread in thousands over the moist (or later in the summer often very dry) clay plains. It seems to flower very sparingly and rather late in the summer. When I found it for the first time, at the Barren Vallies in the Harbour Fjord, July 28, 1900, there were among enormous numbers of individuals, only a few to be found that had flowers, and it appeared as if none had been developed the previous year. The same was the case at the Western Sound, August 1st, but in 1901 I saw it further westward in some places both in flower and with flowers from the previous year. Developed fruit was not seen, but it must, of course, ripen its seed some years, as it has no other means of propagation.

The flowers are very small, the sepals ovate-lanceolate, rather concave, of a more or less reddish hue, and with a narrow white margin. Petals of the length of the sepals, white, or a little pink. The plant has never been figured before so far as I know.

When *A. Rossii* grows in mossy soil, the individuals become densely tufted and more like the form which Richardson has brought home from the arctic coast of America and which forms the β of Hooker, l. c. I, p. 100. The *A. Rossii* of Taylor, Fl. pl. Baffin B., is, probably, not at all the true one, as I have elsewhere shown (Dan.

Greenl. pl., p. 470). HART's specimens of his *Arenaria groenlandica* in the Kew herbarium, doubtless belong to *A. Rossii,* and in all probability the same is the case with GREELY's plant under the same name, which is said to be sterile the same as HART's.

Occurrence. Grinnell Land, Discovery Harbour (HART !). South coast: Harbour Fjord, in the Barren Vallies (2390) and in valley at the western entrance (2454). Goose Fjord, valley inside the Castle. West coast: Reindeer Cove, Lands End (2849).

Distribution: Arctic American Archipelago, Arctic coast of the continent, Rocky Mountains, Land of the Chukches, Spitsbergen.

Alsine verna, (L.) WAHLENB.

Arenaria verna, LINNAEUS, Mantissa, 1767; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; *A. propinqua,* RICHARDSON, App. Franklin I, Ed. 2; HOOKER, l. c.; *A. quadrivalvis,* R. BROWN, Chlor. Melv.; HOOKER, l. c; *A. hirta,* WORMSKJOLD, Fl. Dan., 28; HOOKER, l. c.; *A. rubella,* HOOKER, l. c.; HART, Bot. Br. Pol. Exp.; *A. verna* var. *hirta,* GREELY, Rep.; *Alsine verna,* WAHLENBERG, Fl. Lapp., 1812; BARTLING, Beitr.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; KJELLMAN, As. Beringss. Fan.; FENZL, in LEDEBOUR, Fl. Ross.; *A. rubella,* WAHLENBERG, l. c.; NATHORST, N. W. Grönl.; KJELLMAN, Sib. nordk. fan.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *A. hirta,* HARTMAN, Skand. Fl. Ed. 3 et sequ.; *Alsinella hirta,* HARTMAN, l. c., Ed. 1.

Fig. WAHLENBERG, l. c., T. 6; Sv. Bot., T. 764; Fl. Dan., T. 1518, 1644, 2903.

FENZL has in LEDEBOUR, l. c., I, p. 347—350, referred to the *Arenaria verna* of LINNAEUS (further defined by BARTLING) a great many forms and species distinguished by different authors, and some botanists who have had an arctic flora for object, have followed him, as I think with good reason. Indeed, the large-flowered main form of the plant, such as grows in the Alps of the Europe and Asia, is not found in arctic regions, but there are, in the first-mentioned parts other forms which connect it with the arctic ones. Knowing such a series of intermediate forms to exist, I have thought it best to adopt the above name for the species.

The Ellesmereland specimens generally are best referred to var. *rubella,* (WAHLENB.), some may be referred to var. *hirta,* (WORMSKJ.), and some others may perhaps represent the var. *propinqua,* (RICHARDS.). It is, however, quite impossible to draw distinct lines between these forms. In the driest stations the plant appears as var. *rubella,* generally even smaller and with shorter peduncles as the figure of WAHLENBERG shows. This is the most common form. In somewhat moister and richer

soil, it gets longer internodes, more leafy branches, and longer flower stalks which are often two- or three-flowered, that is to say, it goes over to var. *hirta*. I saw it largest and most flourishing on the north side of Fram Harbour, where it formed large, wide-spread, many-flowered tufts. The flowers here also were larger than usual, and had the petals almost longer than the sepals. The flower is pure white in all my specimens, including the smallest and most condensed forms of var. *rubella* from open, dry, and sunny localities.

The species is spread all over the country in almost every kind of soil, except the swamps, but seldom abundant. Flowers were seen from the middle of June; generally it flowered and fruited abundantly.

Occurrence. North coast (HART). Grinnell Land: Discovery Harbour (HART, GREELY). Hayes Sound district: reported by HART and, according to TH. HOLM, collected by STEIN in the Weyprecht Islands; commonly distributed. Specimens of var. *hirta* from: Fram Harbour (1089); of var. *rubella* from: "Fort Juliane" (670), Skräling Island (1384), Lastraea Valley (854), Fram Harbour (1418, 1886), Bedford Pim Island (271, 446, 1190). Also a form with 4-valved capsule was found in Bedford Pim Island (4232). South coast: common. Specimens of var. *hirta* from: Fram Fjord (1632); several places in the Harbour Fjord, at the anchorage (2544), Lake Valley (2649), „green patch" (2556), Seagull Rock (2583); Goose Fjord, Yellow Hill (3954); generally single individuals among var. *rubella*. Specimens of var. *rubella* from: Fram Fjord (4262); Harbour Fjord, valley on Sir Inglis Peak (2169), Lake Valley (2476), Spade Point (2576), Barren Vallies (2648); Muskox Fjord (2118); Goose Fjord, east of 3rd quarters (3186, 3302, 3429, 3492), Gallows Point (2992), Bottom-valley (3272), Yellow Hill (3594), Castle Point (3961). West coast: along the Hell Gate, Lands End (2849), between Eidsfjord and Baumann Fjord (2735, leg. BAUMANN).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Canada, Vermont, Rocky Mountains to Arizona, Alaska, Arctic Siberia, Kamshatka, mountains down to the Altai, Caucasus, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, Alps, Pyrenées, Great Britain, Faeroes, Iceland.

Sagina intermedia, FENZL.

S. intermedia, FENZL, in LEDEBOUR, Fl. Ross. I, 1842; NEUMAN & AHLFVENGREN, Sv. Fl.; *Spergula saginoides β nivalis*, LINDBLOM, Bot. Ant., ex p. (?), 1838; *Sagina nivalis*, FRIES, Mantissa 3, ex p.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; HARTMAN, Skand. Fl.; KRUUSE, Jan May.; *Spergula saginoides*, HOOKER, Fl. Bor. Amer., ex p.?

Fig. Fl. Dan., T. 2961.

The name which is generally used for the plant here in question is *S. nivalis*, (LINDBL.) FR., but I think the right course to adopt, is to use FENZL's name for it, as there can be no doubt about what he has meant. An examination of what is understood by the names quoted above of LINDBLOM and FRIES, leads to the conclusion that the *S. nivalis*, FRIES at least includes both what is usually referred to it, and also the *S. caespitosa*, (VAHL). The original plant of LINDBLOM perhaps, is identical with the latter, as the description seems to imply, perhaps also it includes both species. The locality Knudshö in Dovre is the same (?) where BAENITZ's specimens in Herb. Europ. are collected, but as both species grow in those mountains there is no conclusion to be drawn from that fact. In using FENZL's name for my plant, I must, however, let it stand as an open question whether the other should be called *nivalis*, (LINDBL.) or *caespitosa*, (VAHL), the latter indubitable name being published two years later than the former.

In its only Ellesmereland locality, the plant grew at the edge of a little pool among grass and moss. Both flowers and fruits were seen July 30th, 1899.

Occurrence. Only on Cocked Hat Island at the East coast (1273).

Distribution: East Greenland, West Greenland (not found North of Melville Bay), Arctic America (one specimen, probably from Boothia Felix, from Ross' second expedition 1829—33, seen in the Nat. Hist. Mus., besides several specimens of *S. nivalis*), Land of the Chukches, Arctic coast of Asia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Faeroes, Iceland, Jan Mayen.

Cerastium alpinum, L.

C. alpinum, LINNAEUS, Sp. plant, 1753; MURBECK, Nordeurop. Cerast.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor· Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.; *C. arcticum*, LANGE, l. c., ex p.; *C. alp.* var. *Fischerianum*, DURAND, Enum. pl. Smith S., non SERINGE.

Fig. Sv. Bot., T. 745; Fl. Dan., T. 6, 779.

A very common and very variable species, appearing in different forms according to the habitat and sometimes approaching *C. Edmondstonii*, (WATS.) MURB. & OSTENF. and the variety *caespitosum*, (MALMGR.) ANDERSS. & HESSELM. of the latter. The differences between the extreme forms, which, very unlike each other, are however in a greater material, obliterated by a great number of intermediate variations. I tried at first to distinguish *C. Edmondstonii* also among my material, but at last I arrived at the conclusion, that this species is not represented in Ellesmereland. *C. Edmondstonii*, which is only spread in Iceland, Faeroes, Shetland, Scotland, Northern Scandinavia and Spitsbergen, is, I believe, a young species differentiated from *C. alpinum*, and restricted to the area mentioned. Indeed there are specimens from Greenland that are very like it, but they must be referred to *C. alpinum*, as I have become convinced in studying the Copenhagen collections. If *C. Edmondstonii* had reached to Greenland, it must of course grow principally in the East coast, but there is only a single locality in the extreme south of that coast mentioned by LANGE, l. c., p. 32, for his *C. arcticum*. All other localities are on the western side, and principally to the northward (several of them are entered on the always very doubtful authority of KANE and HART). Some new localities have been added later, still principally in the north. There are, however, also a few from the south-western coast and two more from the south-eastern. In the northern parts of the east coast, where the eastern species generally appear, there are no statements about *C. Edmondstonii*, as far as the main species is concerned. There are indeed, some records of the var. *caespitosum*, MALMGR., which is transferred by ANDERSSON & HESSELMAN, l. c., to *C. Edmondstonii*. But these can hardly be referred to the latter species as will be shown later.

Now already this mode of distribution made me very doubtful, whether *C. Edmondstonii* should really be reckoned as a Greenland

citizen, and the examination of the specimens further supported my belief. My friend Mr. OSTENFELD, one of the authors of *C. Edmondstonii* is of the same opinion, that no Greenland specimens ought to be referred to that species, but that it is restricted to the above-mentioned area (in Iceland it grows only in the eastern part of the island, viz., it has the, same distribution there as *Alchemilla faeroensis*, (LANGE) BUSER).

The right place of the var. *caespitosum*, MALMGREN, Spetsb. Fan. Fl., is, in my opinion, still doubtful, even if it is probably rightly placed by ANDERSSON & HESSELMAN in that sense in which they have taken it. MALMGREN himself, l. c., referred it to *C. alpinum*, as comprising small-leafed, densely caespitose forms, such as really exist and are to be mentioned in the following as f. *pulvinata*. It is very probable, that such forms of *C. alpinum* are found also in Spitsbergen, and they are, when sterile, impossible to distinguish from *C. Edmondstonii*, which will in all probability vary in the same direction in similar localities.

The many forms of *C. alpinum* are generally directly due to the conditions under which they live, as I am certain after having studied them from nature, not forms which are in the act of differentiation to species, as ANDERSSON & HESSELMAN (l. c., p. 61) think, nor have they taken their rise through hybridization. Indeed there exists a complete series of gradations, but still I think the following four types may be distinguished.

1. A large, long-branched, matlike-spreading form with a pubescence which accords rather well with that which LINDBLOM (Bot. Ant., p. 336) describes as belonging to his *α legitimum*. It has a well-developed inflorescence and consequently several scarious bracts. It is found principally in slopes, old settlements and above all in rookeries.

2. A densely caespitose, rather hairy form, not however so hairy as *β lanatum*, LINDBL. It has not so many-flowered inflorescences as the first, and the bracts are broader and more herbaceous. The sepals also are here broader and more obtuse, and except for the pubescence, it shows a certain resemblance to *C. Edmondstonii*. I have seen exactly similar specimens from Spitsbergen, collected at Welcome Point by WULFF, and referred by him to the latter species (Bot. Beob. Spitzb., p. 110). This form belongs to drier localities, gravel fields and gravelly slopes, especially in the limestone region.

3. A densely caespitose form, far less hairy than the last. The leaves often are quite glabrous except for the ciliation of the margin. The leaves also, as in the last-mentioned form, are very broad and sit close together because the internodes are so short. It flowers very

sparingly. This form is at home in somewhat moist clay-fields and slopes, up towards drier places it goes over into forms 1. and 2. This most resembles *C. Edmondstonii,* and I have seen specimens of it collected by HARTZ at Scoresby Sound, which (Fan. og Karkr., p. 327) are mentioned as connecting var. *caespitosum* with the typical *C. alpinum.*

4. A small-leafed, condensed form, growing in semi-orbicular tufts or dense mats. It agrees entirely with MALMGREN's description of his variety, has succulent leaves which are quite glabrous or at most furnished with a few ciliae. I always found it sterile. NATHORST says (Nya bidr., p. 22) that var. *caespitosum* is more common in the northern coasts of Spitsbergen than *C. alpinum,* and that it is rarely flowering, or appears to be so, because it flowers late. ANDERSSON & HESSELMAN on the contrary, speak of *C. alpinum* as flowering later than *C. Edmondstonii* and its variety. I think that these different statements are due to the confusion under var. *caespitosum* of two separate plants, viz., the analogous varieties of *C. alpinum* and *C. Edmondstonii,* of which the latter probably flowers earlier and more abundantly, whereas the former seems to flower very sparingly and then late in the season. I have not had an opportunity of observing it in greater numbers after the beginning of August, but even old inflorescences were sought for in vain in the extreme f. *pulvinata.* The form 3. also, was rarely found in flower, and only late in the summer. The previously-described glabrous form of *C. alpinum,* var. *glabratum,* RETZ., has long internodes and narrow leaves, and flowers normally, that is to say, it is different from the form here in question in every respect. I think that the Ellesmereland form is characteristic enough to get a name and therefore call it f. *pulvinata.* It is this form, and not the var. *glabratum,* which is the counterpart within the formseries of *C. alpinum* of the var. *caespitosum* within that of *C. Edmondstonii.*

The plant which HART, Bot. Br. Pol. Exp., p. 28, mentions as "*C. latifolium* L. (*C. caespitosum* MALMGREN)" belongs, principally at least, to the last-treated form, partly probably also to the form 3. I have seen several specimens in the Nat. Hist. Mus. as may be seen under the occurrence of the forms. The f. *pulvinata* grows on wet clay fields and its large dense tufts are quite filled with loam. Doubtless this form is directly produced by the local circumstances. It also grows in company with other plants of the same growth, such as *Alsine Rossii, Saxifraga oppositifolia* f. *pulvinata,* and others, and is very singular in appearance, but it goes gradually over in the form 3., which is again connected with the other two. I never saw it with flower and of course,

it must, in sterile state, be quite impossible to separate from the analogous form of *C. Edmondstonii.* In Greenland it is found, at least at Hold with Hope, in the east coast. I have seen the specimens of which HARTZ (l. c., p. 327) speaks as var. *caespitosum,* MALMGR. DUSÉN, Gefässpfl. Ostgrönl., p. 22, and KRUUSE, List E. Greenl., p. 159, refer it as a variety to *C. Edmondstonii,* but as the former at least speaks only of sterile individuals, and as the habitat agrees with that of the f. *pulvinata,* I cannot hesitate to refer their statements to it.

Occurrence. Very common all over Ellesmereland. The localities where the different forms are collected are the following.

Form 1. Hayes Sound region: Lastraea Valley (855), Fram Harbour (1080), Cocked Hat Island (1269), Brevoort Island (1206, leg. FOSHEIM). South coast: Fram Fjord (1631), Harbour Fjord, Seagull Rock (2596) and at the Western entrance (2542).

Form 2. Grinnell Land: Shift Rudder Bay (FEILDEN!), Discovery Harbour (HART!). Hayes Sound region: Fram Harbour (1471), Cocked Hat Island (1269), Bedford Pim Island (263), Brevoort Island (483). South coast: Fram Fjord (1631); South Cape Fjord (2062); Goose Fjord, Falcon Cliff (2886), Castle Point (3963), Yellow Hill (3589). West coast: between Eidsfjord and Baumann Fjord (2735, leg. BAUMANN), Coal Bay, Braskerud Plain (705, leg. ISACHSEN).

Form. 3. North coast: Floeberg Beach (FEILDEN!). Grinnell Land: Shift Rudder Bay (FEILDEN!), Discovery Harbour (HART!). Hayes Sound region: Rutherford Vallies (451). South coast: Fram Fjord (1631); Harbour Fjord, Western entrance (2457); Goose Fjord, Yellow Hill (3584), East of 3rd quarters (3181, 3487), Bottom Valley (3262). West coast: Lands End (2849).

F. *pulvinata.* North coast: Floeberg Beach (FEILDEN!). Hayes Sound region: Rutherford Vallies (313, 1156), Bedford Pim Island (270). South coast: Harbour Fjord, Barren Vallies, Western entrance (2508); Muskox Fjord (2118); Goose Fjord, spread in the clay fields (3584). West coast: Lands End, Nordstrand (2111), Braskerud Plain (700, leg. ISACHSEN).

C. alpinum is noted from Cape Faraday and Fram Fjord by WETHERILL.

Distribution: all over the Arctic Regions and further in Labrador, Rocky Mountains, Caucasus, Northern Scandinavia, Central European mountains, (Faeroes?), Iceland.

Stellaria humifusa, ROTTB.

S. humifusa, ROTTBÖLL, Pl. Isl. Grönl., 1770; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *Alsine humifusa*, BRITTON & BROWN, Ill. Fl.

Fig. ROTTBÖLL, l. c., T. 4, fig. 14; Fl. Dan., T. 978.

My Ellesmereland plant agrees with Scandinavian and Greenland specimens, only it is somewhat less flourishing than the latter generally are. In its few localities, it grew mostly in company with *Glyceria maritima* var. *reptans*, on the beach, generally in loose, sandy, or loamy soil. It flowered and fruited profusely.

Occurrence. Hayes Sound region: Skräling Island in Alexandra Fjord (1385), Cocked Hat Island (1274). South coast: Muskox Fjord, in the great valley to the west.

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Anticosti, shores of the Pacific down to Sitcha, Arctic Asia, Kamshatka, Arctic Russia, Novaja Semlja, Spitsbergen, Finmark.

Stellaria longipes, GOLDIE.

S. longipes, GOLDIE, Descr. pl. Canada, 1822; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *S. Edwardsii*, R. BROWN, Chlor. Melv.; HOOKER, l. c.; *S. laeta*, RICHARDSON, App. Franklin I; HOOKER, l. c.; *S. stricta*, RICHARDSON, l. c.; HOOKER, l. c.; *S. nitida*, HOOKER, in SCORESBY, N. Whalefishery; *Alsine longipes*, BRITTON & BROWN, Ill. Fl.

Fig. HOOKER, Fl. Bor. Amer. I, T. 31; Fl. Dan., T. 2290.

As shown in the synonymic this plant has got, almost at the same time, no less than five different names. It is also rather variable, more, however, in the southern parts of its area, than in the far North. Ellesmereland specimens are generally low, condensed, more or less glabrous and very little hairy, agreeing best with the var. *humilis* of FENZL in LEDEBOUR, l. c. I, p. 387, and especially with its "lusus 3", but also specimens differing more or less from it were to be found. It is a very common plant, and grows under rather different conditions. It was most abundant and vigorous in rookeries, slopes, and old places of habitation. It flowers from the middle of June, but not abundantly; sparingly fruiting.

Occurrence. North coast, (HART). Grinnell Land: Discovery Harbour (HART, GREELY), north of Princess Marie Bay (HART). Hayes Sound region, common, specimens from Skräling Island (1349), Cape Rutherford (321), Fram Harbour (1102), Bedford Pim Island (267). South coast: common, specimens from Fram Fjord (1646), Walrus Fjord (2112). West coast: everywhere along the Hell Gate to Lands End, between Eidsfjord and Baumann Fjord, Coal Bay, Braskerud Plain (704, leg. ISACHSEN).

Distribution: Northern East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Labrador, Nova Scotia, down to Northern New England, Minnesota and California, Rocky Mountains, Alaska, Islands of the Bering Sea, in Asia down to Kamshatka, Baical mountains, Altai, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Finmark.

Melandrium affine, J. VAHL.

Lychnis affinis, J. VAHL, in FRIES, Mantissa 3, 1842; HART, Bot. Br. Pol. Exp.; BRITTON & BROWN, Ill. Fl.; *L. apetala γ involucrata*, CHAMISSO & SCHLECHTENDAL, Pl. Romanzoff. (?); *Melandrium affine*, J. VAHL, in LIEBMAN, Fl. Dan. 40, 1843; *M. involucratum β affine*, ROHRBACH, Syn. Lychn.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; *Wahlbergella affinis*, FRIES, Sum. veg. Scand.; NATHORST, N. W. Grönl.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *Lychnis triflora*, Fl. Dan., T. 2173, non R. BROWN.

Fig. Fl. Dan., T. 2173.

The limits of the genera *Melandrium* and *Wahlbergella* are so little defined, that it seems best to follow ROHRBACH, l. c., who has united them (so also does PAX in ENGLER & PRANTL, Pflanzenfam.). The present species comes very near to *M. triflorum*, (R. BR.) VAHL, but must still, I think, be separated from it. Also from *M. apetalum* it is not easily distinguished where specimens with young fruit are concerned. The seeds give a sure distinguishing mark, and flowering specimens also of *M. affine* are easily classified by their erect flowers, much larger white petals and denser pubescence.

In my opinion, the arctic-american form is not to be separated from the scandinavian-Spitsbergen-siberian one, which is not biennial as ROHRBACH (l. c., p. 216) records but perennial. The petals vary rather much in both, from entire to deeply emarginate. Therefore there is no reason for that division of the species which ROHRBACH has made, probably misled by RUPRECHT who, in Symb. pl. Ross., p. 24—25, has established two species, *Wahlbergella* vel *Gastrolychnis angustiflora*

and *Vahlii.* The former should agree with *Wahlbergella affinis,* FRIES, as specimens in the Herbarium Normale are quoted instead of description, and the latter with *Melandrium affine,* VAHL (Fl. Dan., T. 2173 is quoted). RUPRECHT consequently has here qouted the names which VAHL and FRIES used for the same plant, and has given a new name for each, thus creating, without cause, two new synonyms. Indeed it may be possible that he has had two different forms in front of him, even if that is not to be seen from his description.

Lastly, there is the older name of CHAMISSO & SCHLECHTENDAL referred here, viz. *Lychnis apetala γ involucrata.* This is given from a single individual of unknown origin (cf. l. c., p. 43) and the description applies as well to a form of *M. apetalum.* The authors themselves speak of: — "Plures varietates, habitu dissimiles, nullis tamen certis distinctas characteribus" and leave to others "specierum condendarum periculum". Doubtless it would have been better, not to use that name again.

M. affine generally grows in somewhat dry places with a dense vegetation, such as rock-ledges and slopes, rookeries, and old Eskimo-settlements. It flowered from the beginning of July and fruited richly.

Occurrence. Grinnell Land, Discovery Harbour (HART). Hayes Sound region, rather spread, in some places abundant: Beitstad Fjord, Skräling Island (1367), Cape Viele, Eskimopolis, Lastraea Valley, Fram Harbour (1088), Cocked Hat Island (1272), Bedford Pim Island in several places (278, 441, 1197, 1314). South coast: Fram Fjord (1644); Harbour Fjord, common (1801, 2166, 2325); Muskox Fjord; Goose Fjord, in several places (2873, 3505, 3639, 3951).

Distribution: Northern East and West Greenland, (not found in the Arctic American Archipelago, but probably overlooked), Arctic America, Labrador, Western Siberia, Novaja Semlja, Spitsbergen, Finmark.

Melandrium triflorum, (R. BR.) VAHL.

This species is recorded both by HART and GREELY from Discovery Harbour, but I have seen no specimens of it from Bellot Island where it should grow according to HART, only Greenland specimens were seen in the Nat. Hist. Mus. The notes about it, wich GREELY, Rep., p. 13, gives, seem also to point to the last species rather than the real *M. triflorum.* I therefore think that it must stand as doubtful, the more so as it is nowhere found outside Greenland, and there only northwards to Foulke Fjord.

Melandrium apetalum, (L.) FENZL.

Lychnis apetala, LINNAEUS, Sp. plant., 1753; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; *Wahlbergella apetala,* FRIES, Sum. veg. Scand.; NATHORST, N. W. Grönl.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *M. apetalum,* FENZL, in LEDEBOUR, Fl. Ross.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.

Fig. LINNAEUS, Fl. Lapp., T. 12, fig. 1; WAHLENBERG, Fl. Lapp., T. 7; Fl. Dan., T. 806.

Generally the Ellesmereland specimens have protruding petals and agree with the var. *arctica,* TH. FRIES, Till. Spetsb. Fan. Fl., p. 133. This form, however, is closely connected with the main form, which has the petals included in the calyx, which is also found. The pubescence also is rather variable, sometimes forms are met with, that are almost entirely glabrous (f. *glabra* REGEL ?).

This species generally prefers wetter localities than the preceding, and was found principally along brooks and rinlets and in swamps. It was in flower from the beginning of July, and fruited abundantly.

Occurrence. Grinnell Land: Discovery Harbour (HART, GREELY), north of Princess Marie Bay (HART). Hayes Sound region, rarer than *M. affine*: Rutherford Vallies (1151), Cocked Hat Island (1285), Bedford Pim Island (286, 1192). South coast: Fram Fjord (WETHERILL, 1652); Harbour Fjord, common (2245, 2337, 2397, 2528, 2552); Muskox Fjord (2139); Goose Fjord, abundant (2884, 3270, 3303, 3393, 3433, 3952, 4231). West coast: Coal Bay in Baumann Fjord.

Distribution: Northern East and West Greenland, Arctic American Archipelago, Labrador, Rocky Mountains, Alaska, Kadjak, Islands of the Bering Sea, Arctic and Eastern Siberia, Baical Mountains, Altai, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia. Closely allied forms also in the mountains of Asia further south.

Silene acaulis, (L.) L.

Cucubalus acaulis, LINNAEUS, Sp. plant., 1753; *Silene acaulis,* LINNAEUS, Sp. plant., Ed. 2; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.

Fig. Fl. Dan., T. 21.

Rather often tufts of this plant were found, that had the leaves tinged with dark purple or violet. Sometimes most individuals found in

a locality showed that colour, sometimes only a single one among many normal green ones, sometimes also only part of a tuft was so coloured. The tufts, which can reach a considerable size, are very hard and compact.

Generally it grows in open gravelly soil, especially in slopes to the southward, but it may also be found in level plains both in the low land as well as in the higher plateaus. It flowered from the end of June, and often the tufts were found entirely covered with blossoms, or later, with capsules.

Occurrence. Grinnell Land: Bellot Island, Discovery Harbour (Hart). Hayes Sound region: "Fort Juliane" (681), Beitstad Fjord, Twin Glacier Valley (871), Cape Viele, „Deserted Village" (Hart). Lastraea Valley, Cape Rutherford, Fram Harbour (1084, 1399), Bedford Pim Island (280). South coast: Fram Fjord (1599), Harbour Fjord, common (2159, 2326); South Cape; Muskox Fjord; Goose Fjord, East side from Midday Knoll to the Castle (3578, 3588).

Distribution: East and West Greenland, Arctic American Archipelago, all over Arctic and Subarctic America from Labrador to the Pacific, in the Rocky Mountains to 52°, Bering Sea Islands, Arctic Asia, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Central and Southern European Mountains, Great Britain, Faeroes, Iceland, Jan Mayen.

Polygonaceae.

Polygonum viviparum, L.

P. viviparum, Linnaeus, Sp. plant., 1753; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; Kruuse, Jan May. Fig. Fl. Dan., T. 13; Sv. Bot., T. 336.

The greater part of the specimens may be referred to f. *alpina*, Wahlenberg, Fl. Lapp., p. 99, but there is no distinct line between this and the narrow-leaved form, which is also found. Consequently, I have not thougt it necessary to distinguish them.

It is rather commonly spread especially in moist densely vegetation-clad rock ledges and slopes, but also in other localities. Flowered rather sparingly from the beginning of July.

Occurrence. North coast: Floeberg Beach (Hart). Grinnell Land: Discovery Harbour (Hart, Greely). Hayes Sound region, com-

mon, specimens from: Skräling Island (1368), Fram Harbour (1413), Bedford Pim Island (277). South coast, common, specimens from: Harbour Fjord (2158, 2244, 2598), Goose Fjord (2887). West coast: Reindeer Cove, Lands End, between Eidsfjord and Baumann Fjord, Coal Bay.

Distribution: Greenland, Arctic American Archipelago, Arctic America, Labrador, Canada, New England Mountains, Rocky Mountains to Colorado, Alaska, Islands of the Bering Sea, Arctic Siberia, Kamshatka, mountains of Asia, Caucasus, Northern Russia, Novaja Semlja, Spitsbergen, Scandinavia, Denmark, Central European mountains, Great Britain, Faeroes, Iceland, Jan Mayen.

Oxyria digyna, (L.) HILL.

Rumex digynus, LINNAEUS, Sp. plant., 1753; *Oxyria digyna*, HILL, Hort. Kew., 1768; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.; *O. reniformis*, HOOKER, Fl. Bor. Amer.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; LEDEBOUR, Fl. Ross.; *Rheum digynum*, WAHLENBERG, Fl. Lapp.

Fig. CAMPDERA, Mon. Rum., T. 3; WAHLENBERG, l. c., T. 9; Sv. Bot., T. 692; Fl. Dan., T. 14.

Generally at home in moist slopes with a dense vegetation, often found also in gravelly places, or in clayey slopes, where it would sometimes alone form the entire vegetation (Beitstad Fjord). In flower after the middle of June and richly fruiting.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: Discovery Harbour and southwards to Princess Marie Bay (HART, GREELY). Hayes Sound region, common, specimens from: Cape Rutherford (309, 686, 1132), Fram Harbour (282, 1416), Bedford Pim Island (262, 1195). Southern East coast: Cape Isabella and Gale Point (HAYES). South coast, common, specimens from: Fram Fjord (WETHERILL, 1645), Harbour Fjord (2540), Goose Fjord (2998, 3327, 3332). West coast: along the Hell Gate to Lands End, between Eidsfjord and Baumann Fjord, Coal Bay, Braskerud Plain (706, leg. ISACHSEN).

Distribution: Greenland, Arctic American Archipelago, Arctic America, Labrador, White Mountains of New Hampshire, Rocky Mountains to Colorado, Sitcha, Alaska, Islands of the Bering Sea, Arctic Siberia, Kamshatka, Altai and other mountains, Caucasus, Arctic Russia, Novaja Semlja, Spitsbergen, Scandinavian mountains, Central and South European mountains, Great Britain, Faeroes, Iceland, Jan Mayen.

Salicaceae.

Salix arctica, PALL.

S. arctica, Pallas, Fl. Ross., 1790; R. BROWN, List of pl., et Chlor. Melv.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; LUNDSTRÖM, Weid. Nov. Seml.; ANDERSSON, in DECANDOLLE, Prodr.; *S. arctica β Brownei*, ANDERSSON, l. c.; HARTZ, Fan. og Karkr.; *S. Brownei*, LUNDSTRÖM, l. c., (non BEBB ?)[1]; *S. Pallasii*, ANDERSSON, l. c., *S. altaica*, LUNDSTRÖM, l. c.; *S. cordifolia*, PURSH, Fl. Amer. sept.; HOOKER, l. c.
Fig. LEDEBOUR, Ic. pl. Fl. Ross., T. 460; Fl. Dan., T. 2488; LUNDSTRÖM, l. c., fig. 1; Tab. nostra 7, fig. 6—13.

LUNDSTRÖM has, in his very thorough work quoted above, subjected the history and synonyms of the present species to a very recondite examination which must be referred to for particulars, here it may be enough to state, that the original *S. arctica* of PALLAS was a broad-leaved form with short, slender branches, rather reminiscent of *S. reticulata*. The same name was, however, used about thirty years later by ROB. BROWN, who doubtless has not known PALLAS' plant. This new *S. arctica* somewhat differed from the first, but not enough to be separated from it as a species. I have seen BROWN's type-specimens for the description in Chlor. Melv., and it has somewhat smaller and narrower, rather glabrous leaves, but does not otherwise differ from specimens determined by LUNDSTRÖM as *S. arctica*, PALL. But later also the Greenland plant which has since been called *S. groenlandica*, (ANDERSS.) LUNDSTR., was referred to it, and as ANDERSSON, l. c., referred the name *arctica* to these, he established a new species *S. Pallasii* for the original asiatic plant, and moreover a var. *Brownei* (should be spelled "*Brownii*") of the former. LUNDSTRÖM has conceived the affinity of all these forms and speaks of their continuity, but notwithstanding he says about BROWN's form: "Richtiger würde es vielleicht sein, diese Form unter den Namen *S. arctica* PALL. var. *Brownei* (ANDS.) nob. hinzuführen", he has nevertheless "der Kürze wegen" set it up as a separate species. In this I cannot follow LUNDSTRÖM, but must let it stand as a variety, as also the form *groenlandica*. Indeed herbarium specimens of the extreme forms may seem rather different,

[1] To judge from the distribution given to *S. Brownii*, BEBB, by BRITTON & BROWN, l. c., I, p. 502, it should not include ROB. BROWN's plant, notwithstanding the synonym. That the figure does not agree with it, is perhaps of less importance, as it is hardly worse than many other figures in that work. On the other hand, WETHERILL, List 1894, p. 212, seems to have got his *S. Brownii* determined by BEBB.

but many intermediate forms will also be found, that could as well be referred to one variety as another, and taken together they form an almost complete form-series between *S. reticulata* [1] on the one side, and *S. glauca* on the other.

The broad-leaved, *reticulata*-like forms appear to be most common in Asia, in Greenland and America they are rather rare, here we have instead the var. *Brownii* as the most common form, especially to the north. In southern Greenland the var. *groenlandica* is most common and connects the species with *S. glauca.* Of the latter, LUNDSTRÖM distinguishes a var. *subarctica,* which, however, I am not able to separate from *S. arctica* var. *groenlandica.* All the last-mentioned forms appear also in Asia, but are less common there than the typical *S. arctica,* PALL.

In Ellesmereland, the var. *Brownii* was by far the most common. It grew in almost every locality, very differently developed according to the nature of the habitat. Sometimes it had branches a yard long, and an inch or even more in diameter, but generally, it was much smaller. The branches, however, always lay closely pressed to the soil or even half buried in it, or creeping among moss, at most they would lie espalier-like over the surface of a rock, they never rose free into the air. In the dense vegetation of slopes and rookeries the branches sometimes rose a little from the ground, and here usually the broad-leaved forms were found. The var. *groenlandica,* ANDERSS. (*S. groenlandica,* LUNDSTRÖM, l. c.; LANGE, Consp. Fl. Groenl.) as mentioned, is principally a South Greenland plant, which is, however, also found in the northern parts of the land (cf. HARTZ, l. c., and OSTENFELD, Flow. pl. Cape York). In Ellesmereland it was very rare, yet I have specimens referred to it.

Young plants of *S. arctica* often show a considerable likeness to *S. polaris* or *S. herbacea,* and may have been taken for one of them (797, 1346, represent such a young state).

Salix arctica was one of the first plants to show signs of life in the spring. I have seen the buds burst and the aments protrude, as early as the middle of May in favorable localities, but then it developed more slowly than some other species and did not attain to flowering as soon as *Saxifraga oppositifolia.* But generally it came next on the list of flowering species. The capsules were generally ripe rather early,

[1] There exist some older statements about *S. reticulata* from Greenland, which are doubtless to be referred to such forms, as the real *S. reticulata* is never found there by later collectors.

and in many places it showed decidedly a defoliation already before the frost set in, a phenomenon not observed in any other plant in these regions, where generally the dead leaves rest upon the plant until they decay.

Occurrence. F. *typica.* Hayes Sound region: Skräling Island (1374), Cocked Hat Island (4234). South coast: Goose Fjord, east of 3rd quarters (4233).

Var. *Brownii.* North coast and Grinnell Land, common (HART; I have referred all statements from the Northern region to the most common form, as HART has not made any difference between the forms even if he speaks of the great variability), already recorded by HAYES from Cape Frazer; in the interior at Lake Hazen (GREELY). Hayes Sound region, extremely common, specimens from: Cape Viele (885), table land of Cape Rutherford (1202), Fram Harbour (1419), Cocked Hat Island (1216), Bedford Pim Island (299, 1310). Southern East coast: Cape Isabella and Gale Point (HAYES). South coast: common, specimens from: Fram Fjord (1647); Goose Fjord (2891, 2893, 3299). West coast: along the Hell Gate to Lands End, between Eidsfjord and Baumann Fjord, Coal Bay, Braskerud Plain (692, leg. ISACHSEN), Bay Fjord (476, leg. BAY).

Var. *groenlandica.* Only found on the north side of Fram Harbour (683).

Distribution: Greenland, Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Alaska, Islands of the Bering Sea, Arctic Siberia, Kamshatka, Altai, Novaja Semlja.

Juncaceae.

Juncus biglumis, L.

J. biglumis, LINNAEUS, Sp. plant., 1753; BUCHENAU, Mon. Junc.; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.: NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross ; ANDERSSON & HESSELMAN, Spetsb. kärlv.
Fig. Sv. Bot., T. 497, f. 2; Fl. Dan., T. 120.

Rather commonly spread in swamps, along brooks and in inundated soil. In flower from the beginning of July.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: Shift Rudder Bay, St Patrick's Bay, Discovery Harbour north of Princess Marie Bay (HART, GREELY). Hayes Sound region, rather common, specimens from: "Fort Juliane" (677), table land of Cape Rutherford

(317), Fram Harbour (1125, 1400), Bedford Pim Island (1255). South coast, common, specimens from: Fram Fjord (1612), Harbour Fjord (4263). West coast: along the Hell Gate to Lands End.

Distribution: Greenland, Arctic American Archipelago, Arctic America, Labrador, Canada, Rocky Mountains, British Columbia, Alaska, Pribilof Islands, Northern Siberia, Himalaya, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, Scotland, Faeroes, Iceland.

Luzula arcuata, (Wahlenb.) Sw. var. *confusa*, (Lindeb.) Kjellm.

Juncus arcuatus β, Wahlenberg, Fl. Lapp., 1812; *L. confusa*, Lindeberg, Resa i Norge, 1855; Buchenau, Mon. Junc.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; *L. hyperborea*, R. Brown, Chlor. Melv., ex p.; Greely, Rep.; *Juncoides hyperboreum*, Britton & Brown, Ill. Fl.; *L. arcuata*, Hart, Bot. Br. Pol. Exp., ex p.; Hooker, Fl. Bor. Amer.; ex p.; Ledebour, Fl. Ross., ex p.; *L. arcuata* var. *hyperborea*, Andersson & Hesselman, Spetsb. kärlv.; *L. arc.* var. *confusa*, Kjellman, in Vegaexp.; Gelert, in Ostenfeld, Fl. Arct.; *L. campestris* var. *congesta*, Hart, l. c.
Fig. Fl. Dan., T. 1386.

It was first after considerable hesitation, that I resolved upon using the above name for the plant here in question. Its near affinity to *L. arcuata* cannot be doubted, but the difference in the habit and the limits of its area of distribution speak rather decidedly in favour of looking upon it as a separate species, as Lindeberg, l. c., p. 9, also advocates for. The characters in which, according to Lindeberg and other authors, it should differ from the typical *L. arcuata*, are hardly, however, as constant as required for the establishment of a species. Indeed, the perianth-parts are generally shorter than the capsule, which again, is considerably blunted and almost orbicular, but these characters may also be found in a *L. arcuata*, which is, for the rest, quite typical. Thus the only thing left is to define it entirely by characters of habit, viz., coarser growth, higher and stiffer culm, considerably denser and larger heads (spikes) of flowers, generally in a lesser number (often a single one only), on shorter, coarser and stiffer peduncles. On this hardly more than a variety can be established, even if this form is, within a great area, the only one to be found. All specimens from Greenland in the Copenhagen herbarium, belong to var. *confusa*, as does also the arctic american specimens I have seen in the London collections. From America I have seen only a single specimen of the main form in the Nat. Hist. Mus. It was collected by Macoun, 1889, at "Mtns n. of

Griffin Lake", British Columbia. In Iceland both forms grow, in the Faeroes probably only the main form. In Northern Europe, both are found, as also in Spitsbergen, where the typical *L. arcuata* is, however, only once collected (by NATHORST at Safe Haven, 1882). In Jan Mayen again, only the latter is found. In arctic Asia var. *confusa* seems to predominate. Indeed the distribution seems to point to the fact that the var. *confusa* is a high-arctic modification of the *L. arcuata* of more southern localities, but the fact of the appearance of the latter in Spitsbergen and Jan Mayen again shows that there must be a somewhat more consolidated difference, as the species ought otherwise to have changed into the variety when, for instance, it reached Jan Mayen.

LINDEBERG (l. c.) has also put forward several objections against using the name, *L. hyperborea,* R. BR. for the plant here in question and quite rightly I think. In fact, the description of R. BROWN, l. c., p. 25, is so little clear, that it has been applied to two plants so different as the present one and *L. nivalis,* and, as is pointed out by TH. M. FRIES, Nov. Seml. Veg., p. 40, both species are confounded in the original collection from Melville Island. I have also made sure of that myself, and I think, that there is ample cause for cancelling that name. LINDEBERG, however, thinks that it is to be used for the plant which is also called *L. nivalis* or *L. arctica.* But this cannot be right either. Only the remark "folia plana" in the description of BROWN, l. c., could be used to show that that plant might be meant, and also *L. arcuata* var. *confusa* has flat culm leaves. When the description is not clear enough to show which of the two species is meant, the name must not be taken up again, and moreover there is the confusion of specimens of both, mentioned above.

BUCHENAU, l. c., p. 121, takes *L. hyperborea,* R. BR., as a collective species, under which he puts *L. arctica,* BLYTT, *L. arcuata,* WAHLENB. and *L. confusa,* LINDEB. If such a combination should be accepted at all, which I think quite out of the question, at least the oldest name, that of WAHLENBERG, must be used for it, not the younger one of R. BROWN. Curiously enough, BUCHENAU says about the leaves of *L. confusa*: "lamina plana (raro involuta)", but specimens in the Copenhagen herbarium, which he has himself referred to *L. confusa,* have involute leaves. That the var. *latifolia,* KJELLM. is to be referred to *L. nivalis,* GELERT has shown (l. c., p. 30).

Most part of my specimens can be referred to f. *subspicata,* LANGE, as they have no long pedunculate heads, and have either a spike-like inflorescence reminiscent of *L. spicata,* (L.) DC., or a single head.

L. arcuata var. *confusa* was a very common plant, growing in very different localities, but preferring a dense vegetation. It flowered from the end of June.

Occurrence. North coast: Floeberg Beach and Feilden Peninsula (FEILDEN!). Grinnell Land: Discovery Harbour (HART, GREELY). Hayes Sound region, common, specimens from: Skräling Island (1370), Cape Viele (862, 1343), Cape Rutherford (1896, 1897), Fram Harbour (284, 1109, 1165), Cocked Hat Island (1215), Bedford Pim Island (259, 440, 1248). South coast, common, especially in the archaean district; specimens from: Fram Fjord (1608); Harbour Fjord, Seagull Rock (2588), Sir Inglis Peak (2167, 2655); Goose Fjord (2994, 3266, 3301, 3499, 3581). West coast: Lands End, Braskerud Plain.

Distribution: The variety as already mentioned represents the species in nearly all arctic localities, generally alone. Further south it is found together with the main species, especially in Europe and Asia, in America it reaches as far south as the mountains of New England and the Rocky Mountains. True *L. arcuata* from America, I have only seen from the single locality in British Columbia mentioned above.

Luzula nivalis, (LAEST.) BEURL.

L. campestris β nivalis, LAESTADIUS, Bot. Anm., 1823; *L. nivalis*, BEURLING, Luz. Scand. consp., 1853; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; non SPRENGEL, Syst. veg. (?); *L. arctica*, M. N. BLYTT, Norg. Fl.; BUCHENAU, Mon. Junc.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; KJELLMAN, Sib. Nordk. Fan. Fl.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml..; *L. hyperborea*, R. BROWN, Chlor. Melv., ex p.; HOOKER, Fl. Bor. Amer., ex p.; FRIES, Sum. veg. Scand.; LINDEBERG, Resa i Norge; *L. arcuata* f. *latifolia*, KJELLMAN, As. Beringss. Fan.; *L. confusa* var. *latifolia*, BUCHENAU, l. c.; MACOUN, Pl. Pribilof; *Juncoides nivale*, BRITTON & BROWN, Ill. Fl.

Fig. Fl. Dan., T. 2952.

As appears already from the long list of synonyms, there has been a great difference in the opinions of different authors about this plant. That it forms part of the *L. hyperborea* of R. BROWN has already been mentioned under the last species, where I have also given my reasons for not adopting that name for either of them. The oldest available name, is that of LAESTADIUS, l. c., which applies to our plant, as appears from the rather good description as well as from specimens in the Stockholm herbarium. For the transmitting to the genus *Luzula*, BEURLING must be quoted, as it is impossible to make out what SPRENGEL (l. c.) meant.

LINDEBERG says that in Dovre this species grows highest up in the mountains; this as well as the statement of BLYTT, that he has collected it in wet places, covered with mosses and lichens in the higher mountains, accords well with my experience, that *L. nivalis*, which is considerably rarer and more sporadic in Ellesmereland than the last species, generally prefers poorer places with a scanty vegetation but with a larger supply of water. It flowered somewhat later than the preceding.

Occurrence. Northern coast: Egerton Valley (FEILDEN !). Grinnell Land (I cannot but assume that some of HART's statements under *L. arcuata* must be referred to this). Hayes Sound region: Eskimopolis (838), Skräling Island (4257), Cape Rutherford (301), Fram Harbour (4259, 4260), Bedford Pim Island (4256, 4258), probably overlooked in other places. South coast, less rare, but not so common by far as was the preceding, especially in the archaean district: Fram Fjord in the Western valley (1662); Harbour Fjord, Spade Point (1799), Western Sound (2439), "green patch" at the anchorage (2558); Muskox Fjord (2146); Goose Fjord, Falcon Cliff (2885), at the bottom of Walrus Fjord (2869). West coast: Nordstrand (2111, leg. FOSHEIM), Braskerud Plain (698, leg. ISACHSEN).

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Alaska, Pribilof and St. Lawrence Islands, Arctic Siberia, Novaja Semlja, Spitsbergen, Northern Scandinavia.

Cyperaceae.

Carex membranopacta, BAILEY.

C. compacta, R. BROWN, List of pl., 1819; non KROCKER; *C. membranacea*, HOOKER, Bot. App. Parry II; BOOTT, in HOOKER, Fl. Bor. Amer.; HOOKER & ARNOTT, Bot Beechey; TORREY, Am. Cyp.; non HOPPE; *C. saxatilis* var. *compacta*, DEWEY, Caricogr.; *C. saxatilis*, TORREY, l. c., (?); *C. rotundata*, OSTENFELD, Fl. Arct., ex p.; *C. pulla*, KJELLMAN, Fan. Vestesk. land; SIMMONS, Prel Rep. et Bot. Arb.; *C. membranopacta*, BAILEY, Not. on Carex, 17, 1893; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof (?).

Fig. Tab. nostra 9, fig. 1—4.

The plant here in question seems to be the substitute in arctic America, perhaps also further south, for on the one side the typical *C. rotundata*, such as it appears in northern Europe and also in Greenland, and on the other for *C. pulla*, which it resembles in its flat leaves. During my stay in Ellesmereland, I was rather doubtful where to place this plant which though calling to mind both the species mentioned, still

did not quite agree with either of them. Later I found that the plant was described by HOOKER on specimens from Duke of York Bay (Southampton Island) from PARRY's second voyage (I have also seen original specimens in the London and Copenhagen collections). But the name of HOOKER cannot be used, as there existed already another *C. membranacea,* described by HOPPE, 1832. The oldest name of the plant *C. compacta,* was also previously used by KROCKER, 1814, and moreover R. BROWN, l. c., has instead of description, only the remark "C. pullae affinis". BAILEY, l. c., therefore is quite right in giving a new name to the plant, which must doubtless be given the rank of a separate species. OSTENFELD, l. c., has referred *C. membranopacta* to *C. rotundata,* to which it doubtless comes nearest and for which it seems to be the substitute all over the american area (according to BRITTON & BROWN, l. c., I, p. 296, it also goes over to Asia, down to Kamshatka). In Greenland, the european *C. pulla* and *C. rotundata* are found, but not *C. membranopacta* which may, however, be looked for on the north-western coast. *C. pulla* is also found in America, where RICHARDSON among others, has collected it.

The diagnosis of HOOKER runs thus: "*C. membranacea,* spica mascula subsolitaria, femineis magis minusve pedicellatis, oblongo-cylindraceis erectis obtusis (atrofuscis, nitidis); fructu laevi rotundato, inflato, breviter acuminato bifido, pedicellato; vaginis perbrevibus".

The following description also agrees in detail with my plant, it is too long to quote here, but I will give a shorter description as follows:

Rhizome with long shoots, creeping under ground and clothed with dark brown, glossy sheaths. Culms 10—30 cm. high, rounded triquetrous, upwards with sharper, scabrous edges; leafy in the lower third or half.

Leaves of the length of the culm or generally shorter; 3—5 mm. broad, flat, or becoming somewhat involute in drying; scabrous at the margin. Leafy shoots rather numerous, and, the same as the culms, covered with glossy brown or reddish sheaths at the base. The lowest bract quite herbaceous (as sometimes also the next) reaching the height of the culm, but very rarely the top of the uppermost spike. The upper bracts generally developed only as brown sheaths.

Pistillate spikes generally two or three, the lowest one rather often with a short, stiff peduncle; about 2 cm. long or shorter, thickly cylindraceous, or nearly ovate when they are short. Staminate spike generally single, club-like; sometimes there may be another smaller one

below it, and also the staminate spike (or spikes) may have feminine flowers at the base.

Scales of the pistillate spikes dark brown, (sometimes light, scareous at the top) rather abruptly contracted in a short point. Scales of the masculine spikes more obtuse, also dark brown and with lighter points.

Utricles membraneceous, inflated, in drying getting more or less crumpled and collapsed; shiny, dark auburn or lighter at base; with a very short pedicel and above abruptly contracted to a very short, minutely two-toothed beak. The short, rounded, nearly obovate utricles of *C. membranopacta* form a distinct character from *C. pulla*, which has them widest near the base and gradually tapering upwards, and also from *C. rotundata*, which has them rather elliptic. Stigmas generally three as in *C. rotundata*, occasionally two.

The description of the plant in question which is given by BRITTON & BROWN I, p. 296, agrees on the whole well with the specimens I have seen only it must be remembered that those authors have probably studied specimens from more southern localities, while mine were from its northern limit. The fig. 685, like so many others of the Ill. Fl., is so little characteristic or partly wrong, that it would be better left out. However, I think that the statements about the distribution may be relied upon, except when Greenland is drawn into its area. I have not been able to find a single specimen of *C. membranopacta* in the Copenhagen herbarium, where large collections of *C. pulla* and *C. rotundata* are to be found. In northwestern Greenland it may, perhaps, still be found, as it seems not improbable that it might have reached over there as well as a number of other american species. The plant which MACOUN, l. c., p. 573, mentions as *C. membranopacta*, seems to differ somewhat from the arctic one, but is probably not specifically different from it.

C. membranopacta grew generally in swamps and along brooks, often in company with *C. aquatilis* var. *stans*. It was in flower about the beginning of July and fruited abundantly.

Occurrence. Hayes Sound region: Twin Glacier Valley (868); Lastraea Valley (857); Bedford Pim Island, Rice Strait side (1254). South coast, found only in the archaean district, entirely missing in the lime- and sandstone region to the west: Western valley in Fram Fjord (1602); Harbour Fjord, Big Valley (2342), Lake Valley (2229), wet ledges of the "green patch" at the anchorage (2241, 4002).

Distribution: Arctic American Archipelago (the following specimens seen: Port Bowen (JAS. ROSS), Kingnite (TAYLOR), Kickertine,

Southampton Island and Igloolik (PARRY, sec. voy.), Minto Inlet). Arctic America (specimens from Boothia Felix (?)), JOHN ROSS 1829—33; Rae River, Cumberland House, Bear Lake, RICHARDSON, &c.; Alaska (specimens from Port Clarence, KJELLMAN), Pribilof Islands, Land of the Chukches (somewhat doubtful specimens with young spikes, taken by KJELLMAN at Konyam Bay) Kamshatka.

Carex capillaris, L.

C. capillaris, LINNAEUS, Sp. plant., 1753; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; TORREY, Am. Cyp.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; MEINSHAUSEN, Cyp. Russl.
Fig. Fl. Dan., T. 2374.

This seems to be a very rare species within the area, but as it has rather a great resemblance in habit to small specimens of *C. misandra*, it may perhaps have been overlooked in some place or other. It grows together with the latter species in densely vegetation-clad slopes, where it is not too dry.

Occurrence. South coast: Harbour Fjord, ledges of the "green patch" (2239, 3996), and at the Western sound (2441).

Distribution: East Greenland, Danish West Greenland, Arctic American Archipelago (only seen from Baffin Land), Arctic America, and down to Labrador, New Foundland, Maine, White Mountains, Michigan, Rocky Mountains to Colorado and Utah, Alaska, Unalaschka, Northern Siberia, Kamshatka, Altai, Caucasus, Northern Russia, Northern Scandinavia, mountains of Central and Southern Europe, Great Britain, Iceland.

Carex ustulata, WAHLENB.

C. ustulata, WAHLENBERG, Inl. Caricogr., 1803; OSTENFELD, Fl. Arct.; ANDERSSON, Cyp. Scand.; MEINSHAUSEN, Cyp. Russl.; DUSÉN, Gefässpfl. Ostgrönl.; ABROMEIT, Phan. Westgrönl.; SIMMONS, Prel. Rep., Bot. Arb. et Dan. Greenl. pl.; HOOKER, Fl. Bor. Amer.; TORREY, Am. Cyp.; KJELLMAN, in Vegaexp.
Fig. Sv. Bot., T. 717; Fl. Dan., T. 1590.

It is not without hesitation, that I uphold the above name. WAHLENBERG, l. c., 4, p. 156, himself gives *C. atrofusca*, SCHKUHR, as a synonym. This name is two years older than that of WAHLENBERG, and should, consequently be used for the plant if it could be proved that the author has really had the same species in mind. But this is very

doubtful; the figure quoted by WAHLENBERG (Riedgräs. N. 90 (p. 106) T. 284Y, N. 82) depicts *C. atrofusca* with scales that are only little more than half as long as the utricles, and this cannot be a casual error, as it is twice repeated. In spite of the resemblance which the figure shows in other points to *C. ustulata*, I think this is enough to prevent the adoption of the name of SCHKUHR. Moreover there is also said in the description: "fast zur Hälfte kürzeren Schuppen als die Kapseln". The author further says that he has got his specimen among *C. atrata* "ohne Anzeige des Vaterlandes" and lastly he records it from Iceland, where *C. ustulata* does not grow. Later SCHKUHR himself in Bot. Handb., 4, p. 221, accepted the name *C. ustulata*, WAHLENB., with his own name *atrofusca* as a synonym, but here also it is recorded from Iceland. Even if there should exist original specimens to show that *C. ustulata* has been understood by SCHKUHR under his *C. atrofusca*, it can hardly have had reference to that plant alone, but some other must have been included, and it is, partly at least, that other plant which has been described and figured. Consequently the name of WAHLENBERG alone is available.

This sedge, which has a rather remarkable sporadic distribution in arctic countries, was one of the rarest in Ellesmereland. Nevertheless I think it quite impossible that I could have overlooked it in other places as it immediately catches the eye, where it stands in the swamps with its sooty black, long-pedunculate and early drooping spikes. Still in flower July 26, 1900.

Occurrence. Grinnell Land, Discovery Harbour (?). GREELY, Rep. 2, p. 15, has in his list a "*Carex atrata*, Linn.; or *ustulata*, WAHL." about which he says: "From 600 to 1200 feet (183 to 366 m.) altitude, in marshy or damp loamy soil; specimens from 1 to 6 inches (25 to 152 mm.) high". Of course it is rather difficult to form an opinion about a plant so curiously designed, but still I think it more probably that it really is *C. ustulata*, which is found in several arctic american localities, than *C. atrata*, L., of which no specimens from arctic America were to be found in the London collections. Hayes Sound region: "Deserted Village" HART (one individual together with *C. misandra*). South coast, Harbour Fjord: Big Valley (2343), Barren Valley (2396).

Distribution: East Greenland (only at Hurry Inlet, 71°, DUSÉN, 1901), West Greenland (Pröven, 72° 20′, HART, 1875 (sub *C. fuliginosa*), Karajak Fjord, 70° 25′, VAN HÖFFEN, 1897); Arctic American Archipelago (Port Bowen, JAS. ROSS; Igloolik, PARRY's sec. voy.; Cambridge Bay, ANDERSSON; these are all the specimens seen in the Nat. Hist.

Mus. and at Kew); Arctic America (specimens seen from south side of Fury and Hecla Strait; Rae River, RICHARDSON, and from the voyage of that traveller 1848—49); Labrador (?); Alaska; Land of the Chukches; East Siberia, mouth of the Yenissei, alpine in Asia down to the Himalayas, Northern Russia, mountains of Scandinavia, the Alps, Scotland.

Carex misandra, R. BR.

C. misandra, ROB. BROWN, Chlor. Melv., 1823; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.: GREELY, Rep.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; NEUMAN & AHLFVENGREN, Sv. Fl.; A. BLYTT, Norg. Fl.; *C. fulginosa β misandra*, LANG, Car. germ. et scand.; *C. fuliginosa*, HOOKER, Fl. Bor. Amer.; TORREY, Am. Cyp.; ANDERSSON, Cyp. Scand.; HARTMAN, Skand. Fl.; MEINSHAUSEN, Cyp. Russl.; HART, Bot. Br. Pol. Exp.; FEILDEN, Fl. pl. Nov. Zeml.; *C. frigida β*, LEDEBOUR, Fl. Ross.

Fig. Fl. Dan., T. 2373; ANDERSSON, l. c., T. 7, fig. 90.

The difference between the *C. misandra* of R. BROWN and *C. fuliginosa*, STERNB. & HOPPE, is doubtless very small, and the former says himself (l. c., p. 51) about his plant: "Hinc ad C. fuliginosam Sternb. l. c. procul dubio referenda". Nevertheless all the authors who have lately treated the flora of arctic countries, have kept the plant of those regions separate from that of central Europe. I have seen very little of *C. fuliginosa* from central Europe, and have thought it best to accept the commonly-used name. The name *C. fuliginosa* is first used by SCHKUHR, Riedgräs., p. 91 et T. Cc, n. 47 (1801), but the plant there described and figured is most probably *C. frigida*, ALL., Fl. Pedem. (1785). Later the name *fuliginosa* was used by STERNBERG & HOPPE in Denkschr. d. k. Bayr. Got. Gesellsch. V. 1, 1816 (according to HOPPE, Caric. germ., p. 52) for a plant which comes very near to the arctic one and seems to differ principally in its larger growth, longer, more cylindraceous spikes, and the white-tipped beak of the utricle. Rather often the Ellesmereland plant has also the spike below the terminal one androgynous, or sometimes also there is a small female spike placed so near the terminal one, as to give it almost the aspect of being branched. The colour of the scales varies between rather light brown and almost black. In the latter case, especially when the peduncles of the spikes are short, and the inflorescence contracted, the plant acquires a certain resemblance in habit to *C. atrata*.

C. misandra is the most common representative of the genus in Ellesmereland. It is rarely lacking in the slopes, and is also commonly found in plain that are not too moist, it grows on the top of higher

knolls in the swamps; and its big, compact tufts often clothe wide stretches of ground. Its size may be very different, but under favourable conditions, in rich soil and in warm summers, I have seen it attain to the height of 15 inches (at the "green patch" near our anchorage in the Harbour Fjord, and in the great valley in the Walrus Fjord, 1902), but also stunted individuals, not more than an inch or two high, could be found It flowered from the end of June and fruited abundantly.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land; Discovery Harbour (HART, GREELY); Franklin Pearce Bay (HART), Victoria Head. Hayes Sound region, common; specimens from: Cape Rutherford (305), Bedford Pim Island (269, 1251). South coast, common in the archaean territory; specimens from: Fram Fjord (1622), Harbour Fjord (2238, 2341, 2446, 3997); more rare to the west in the lime and sandstone regions; specimens from: South Cape Fjord (2062), Goose Fjord (3331). West coast: Simmons Peninsula up to Lands End; Braskerud Plain (707, leg. ISACHSEN).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Hudson Bay region, Rocky Mountains to Colorado, Alaska, St. Lawrence Island, Land of the Chukches, mouths of Lena and Olenek Rivers, East Siberia, Kamshatka, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Iceland. *C. fuliginosa* in the Caucasus and Central European mountains.

Carex pedata, WAHLENB.

C. pedata, WAHLENBERG, Fl. Lapp., 1812; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; LEDEBOUR, Fl. Ross.; MEINSHAUSEN, Cyp. Russl.; ANDERSSON, Cyp. Scand.; HARTMAN, Skand. Fl.; non LINNAEUS, Sp. plant., Ed. 2; nec ALLIONI, Fl. Pedem.

Fig. WAHLENBERG, l. c., T. 14; Sv. Bot., T. 684; Fl. Dan., T. 2431.

The name *C. pedata* is first used by LINNAEUS, l. c., p. 1384, but the plant there understood, is certainly something quite different from that which WAHLENBERG has afterwards identified with it. As already pointed out by several authors, the specimens of LINNAEUS have probably belonged to *C. globularis*, L., nothwithstanding the quotations point to *C. ornithopoda*, WILLD. This is especially the case with the quotation "Mich. gen. T. 32, fig. 14". The figure of MICHELIUS (N. plant. gen.) can hardly have reference to any other species than the last-mentioned, or *C. digitata*, L. ALLIONI, l. c. 2, p. 268, gives no description, but quotes only LINNAEUS and the authors already quoted by him. In the Alps, however, neither *C. pedata*, WAHLENB., nor *C.*

globularis, L., are found. The question is, can it therefore be assumed, that ALLIONI has had in mind the plant which generally goes under the name *C. ornithopoda*, WILLD., and that consequently this should by rights be called *C. pedata*, ALL., and that the plant of WAHLENBERG should have a new name? The statement about the habitat "in sylvis subhumidis montanis" and its place beside *C. digitata*, speak undeniably in favour of this. LINNAEUS also has his *C. pedata* placed beside *C. digitata*, and it is recorded as growing "in Helvetia, Anglia, Lapponia", viz., regions where *C. ornithopoda* is found. But as it is not proved to be a certainty what LINNAEUS or ALLIONI meant by *C. pedata*, I think it may be better at present to leave their names entirely out of consideration and to keep the name of WAHLENBERG, as now used for nearly a hundred years.

This species has never before been recorded from any part of America, and even if found by FEILDEN, without being recognised by HART, it may still be considered a very rare plant in Ellesmereland.

Grew in dry, gravelly rock ledges, fruiting when found about the beginning of August, 1900.

Occurrence. East coast: Hayes Sound, leg. FEILDEN, Aug. 1875! (This is probably the "*C. alpina*, Sw. (*C. holostoma*, Drej.)" of HART, Bot. Br. Pol. Exp., p. 38). South coast: Harbour Fjord at the Western sound (2445) and together with *C. capillaris* at the "green patch" near the anchorage (4251).

Distribution: East and West Greenland, Alaska, Land of the Chukches, mouths of the Lena and Yenissei Rivers, East Siberia, Altai, Northern Russia and Finland, mountains of Northern Scandinavia, Iceland.

Carex rupestris, ALL.

C. rupestris, ALLIONI, Fl. Pedem., 1785; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer; BRITTON & BROWN, Ill. Fl.; KJELLMAN, Fan. Vestesk. land; LEDEBOUR, Fl. Ross.; MEINSHAUSEN, Cyp. Russl.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.
Fig. Fl. Dan., T. 1401, 2433.

Not having seen the specimens of GREELY, I must take it for granted that he has rightly determined the plant, which is probably very rare in Arctic America. I found it in dry rock ledges near our second winter quarters.

Occurrence. Grinnell Land, Discovery Harbour (? GREELY). Hayes Sound region: "Fort Juliane" (680). South coast: Harbour Fjord east of the anchorage (2228, 2537). West coast: Bays Fjord (481, leg. BAY).

Distribution: Northern East and West Greenland, Labrador to British Columbia, Rocky Mountains to Colorado, Alaska, Baical region, Altai, Yenissei district, Caucasus, Ural, Northern Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, mountains of Central Europe, Scotland, Iceland.

Carex aquatilis, WAHLENB.

var. *stans*, (DREJ.) BOOTT.

C. stans, DREJER, Rev. Car. bor., 1841; LANGE, Consp. Fl. Groenl.; HART, Bot. Br. Pol. Exp.; *C. aquatilis* var. *stans*, BOOTT ex BAILEY, Not. on Carex; OSTENFELD, Fl. Arct.; *C. aquatilis* var. *epigejos*, KJELLMAN, in Vegaexp.; *C. rigida*, HART, l. c.; *C. vulgaris* var. *hyperborea*, GREELY, Rep. (?).
Fig. Fl. Dan., T. 2477.

During my stay in Ellesmereland, I thought that the specimens now referred here represented two species, but I have since arrived at the conclusion, that not only the tall form growing in the water of pools, etc. (1363, 1893) belongs to the above variety, but also the shorter and stouter *Carex*, which grew commonly in swamps, along brooks, and also in drier soil, which plant I had originally identified with *C. hyperborea*, DREJ. It is the latter form, which HART has called *C. rigida*, as I have ascertained at Kew. It seems rather a probable conjecture, that the above-quoted statement of GREELY must also be referred to the same.

The large water-form may perhaps be referable to f. *sphagnophila*, FRIES, at least it very much resembles some of the specimens distributed by the author in the Herb. Norm., Fasc. 11, N. 78, and it also agrees with the description in ANDERSSON, Cyp. Scand., p. 47. FRIES himself has given no precise description of it but refers in Sum. veg. Scand. only to the above number in the Herb. Norm.

Flowered rather late in July, but fruited abundantly.

Occurrence. Grinnell Land: Discovery Harbour (HART !), Shift Rudder Bay (FEILDEN !). Hayes Sound region, rather common: "Fort Juliane", Beitstad Fjord (489, 651), Skräling Island (1363, 1365), Twin Glacier Valley (1892), Cape Viele (860, 1344, 1893), "Deserted Village" (HART), Lastraea Valley (1891), Fram Harbour (288), Bedford Pim Is-

land (260). South coast, less common, especially outside the archaean district: Fram Fjord, along a river in the Western valley (4253); Harbour Fjord, in the Big Valley (2339) and Barren Vallies (2391); Goose Fjord, Ptarmigan Gorge (3391).

Distribution: West Greenland, Arctic American Archipelago, Alaska, Arctic Siberia, Novaja Semlja, Northern Scandinavia. The main species rather widely spread southwards in the continents.

Carex glareosa, Wahlenb.

C. glareosa, Wahlenberg, Inl. Caricogr., 1803; Schkuhr, Riedgräs. 2; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Simmons, Prel. Rep. et Bot. Arb.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; Andersson, Cyp. Scand.

Fig. Sv. Bot., T. 645; Fl. Dan., T. 2430.

This seems to be a very rare species, as I have only found it in a single locality, in dry places together with *C. rupestris*. Only old culms were found (June 6, 1899) and I had no occasion to visit the place at a more favorable season.

Occurrence. Hayes Sound, "Fort Juliane" (680).

Distribution: East and West Greenland, Baffin Land, Labrador, Canada, Alaska, Unalaschka, St. Lawrence Island, Land of the Chukches, Kamshatka, Northern Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Iceland.

Carex ursina, Dew.

C. ursina, Dewey, Caricogr., 1835; Torrey, Amer. Cyp.; Ostenfeld, Fl. Arct.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Simmons, Prel. Rep. et Bot. Arb.; Hooker, Fl. Bor. Amer.; Kjellman, Sibir. nordk. fan.; Kjellman & Lundström, Fan. Nov. Seml.; Andersson & Hesselman, Spetsb. kärlv.; *C. glareosa ursina*, Britton & Brown, Ill. Fl.

Fig. Dewey, l. c., T. 5, fig. 68; Hooker, l. c. 2, T. 210; Fl. Dan., T. 2429.

A rare species only found in two places, but growing there sociably in wet soil, and both times (July 30, 1899 and August 4, 1902), fruiting abundantly.

Occurrence. Hayes Sound region: near the Eskimo house on Cocked Hat Island (1275). South coast: great valley on the West side of Walrus Fjord, near the shore (3935).

Distribution: East Greenland, Danish West Greenland, Arctic America, (not found in the islands), Northern Siberia (only found in the islands Bjeli Ostrow (White Island) and Preobrascheni), Novaja Semlja, Spitsbergen.

Carex incurva, LIGHTF.

C. incurva, LIGHTFOOT, Fl. Scot., 1777; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; BOOTT, in HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, Fan. Vestesk. land; LEDEBOUR, Fl. Ross.; MEINSHAUSEN, Cyp. Russl.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May. *C. nardina*, HART, Bot. Br. Pol. Exp., ex p.

Fig. LIGHTFOOT, l. c., T. 24; Fl. Dan., T. 432.

Widely spread in Ellesmereland but appears sporadically and is very variable in different localities. The rarest is the common european form, with low arched culms such, as it is found in our shores and also in alpine stations. This, however, may be found in sandy as well as in clayey localities. Some of my specimens agree rather well with the var. *erecta*, LANG, Car. germ. et scand., but in most cases they represent intermediate forms between these.

A characteristic form I collected in a pool at an old Eskimo tent-place near Cape Viele; I think it differs sufficiently from other forms to have a right to a name.

Var. *inflata*, n. var.: rhizoma longum inter muscos in aqua libere natans, culmus erectus, valde inflatus, spica subglobosa.

My specimens, collected July 4, 1899, had fruits from the preceding year. Besides the strongly-inflated culm and the dark brown, also very much inflated utricles, it differed from other forms principally in the unusual mode of its growth.

C. incurva flowers rather late but sometimes fruits richly. In some places only found sterile.

Occurrence. Main form: Grinnell Land, Discovery Harbour (HART!). Hayes Sound region at the south side of Fram Harbour (641, 1126), Cocked Hat Island (4250). South coast, more common: Fram Fjord in several places, on the sandy shore and along rivers (1611, 1670); Harbour Fjord, Seagull Rock (near var. *erecta*, 2578); Goose Fjord, at the Yellow Hill. West coast: Coal Bay in Baumann Fjord.

Var. *erecta*: South coast, Harbour Fjord in wet, grassy ledges at the "green patch" (2237, 4005).

Var. *inflata*: Hayes Sound region, old Eskimo encampment at Cape Viele (859).

Distribution: Northern East Greenland, West Greenland, Arctic American Archipelago, Arctic America, Hudson Bay region, Rocky Mountains, Alaska, St. Lawrence Island, Land of the Chukches, mouth of the Yenissei, Baical region, Altai, Himalayas, Caucasus, Northern Europe, Novaja Semlja, Spitsbergen, Central European mountains, Great Britain, Faeroes, Iceland, Jan Mayen, Tierra del Fuego.

Carex nardina, Fries.

C. nardina, Fries, Und. Kobr. nard., et Mantissa 2, 1839; Ostenfeld, Fl. Arct.; Drejer, Rev. Car. bor.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Greely, Rep.; Britton & Brown, Ill. Fl.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; Hartman, Skand. Fl.; *C. Hepburnii*, Boott, in Hooker, Fl. Bor. Amer.
Fig. Fl. Dan., T. 2365; Hooker, l. c. 2, T. 207.

As a synonym of *C. nardina* Fries records *Kobresia nardina*, Hornemann, Nom. Fl. Dan., which name has been put instead of *C. Bellardi*, All., as T. 1529 of the Fl. Dan. was previously designed. The plant here figured is, however, *C. gynocrates*, (Wormskj.) Drejer, as this author (l. c., p. 434—36) and later Lange (Nomencl. Fl. D.) have pointed out. Doubtless Wormskjold has confounded at least two different species, as certainly the specimens he sent to Fries and that induced the latter to identify Ångström's plant from Junkersdalen with the new Greenland-sedge must have belonged to *C. nardina*, and such also must have been the case with the specimens that Hornemann sent to Hooker, which form part of the material for Boott's *C. Hepburnii*. There are also specimens collected by Wormskjold in the Copenhagen herbarium representing *C. nardina*. Drejer, l. c., has pointed out the error of Fries as to the quotations, and the latter has also in Mantissa 3, corrected his statement and has excluded the quotation of the above-mentioned figure, Fl. Dan., T. 1529, the original of which, a specimen of *C. gynocrates*, lies in the Copenhagen herbarium.

C. nardina is rather a common plant in dry, gravelly slopes and ledges, where it forms large, hard tufts. The leaves and culms are generally taller than in Scandinavian specimens. Flowered late, but developed fruit abundantly.

Occurrence. North coast: Floeberg Beach (Hart). Grinnell Land, common according to Hart, especially mentioned as abundant on Norman Lockyer Island. Hayes Sound region, common. Specimens

from: mouth of Flagler Fjord (491), "Fort Juliane" (676), Cape Rutherford (300, 1135), Fram Harbour (1398, 1894), Bedford Pim Island (448). Weyprecht Islands, leg. STEIN, according to TH. HOLM. South coast, common in the archaean territory. Specimens from: Fram Fjord (1606, 1663), Harbour Fjord (2523). Further westward seen at the Muskox Fjord and at several places in the Goose Fjord (3498); lacking as it seemed in the limestone tracts. West coast: Bay Fjord (477, leg. BAY).

Distribution: East and West Greenland, Baffin Land, Arctic America, Labrador, Hudson Bay region, Rocky Mountains, Spitsbergen, Northern Finland and Scandinavia, Iceland.

Kobresia bipartita, (ALL.) D. TORRE.

Carex bipartita, ALLIONI, Fl. Pedem., 1785; *Kobresia bipartita*, DALLA TORRE, Best. Alpenpfl., 1882; OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; BRITTON & BROWN, Ill. Fl.; *K. caricina*, WILLDENOW, Sp. plant.; LANGE, Consp. Fl. Groenl.; SIMMONS, Prel. Rep. et Bot. Arb.; KJELLMAN, Fan. Vestesk. land; *Elyna caricina*, MERTENS & KOCH, Deutschl. Fl.; LEDEBOUR, Fl. Ross.; HOOKER, Fl. Bor. Amer.

Fig. Sv. Bot., T. 527; Fl. Dan., T. 2426.

The Ellesmereland localities are about 3° north of its limit as formerly known; not previously found in Arctic America. It grew in grassy slopes and rock ledges.

Occurrence. South coast, Harbour Fjord: "green patch" at the anchorage (2240, 3994), Lake Valley (2654, 4252), Barren Vallies (2402).

Distribution: East Greenland (71°—73° 20′), West Greenland (64°—73°), Rocky Mountains, Alaska, Caucasus, Central European mountains, Scandinavian mountains (not far northwards), Great Britain.

Elyna Bellardi, (ALL.) KOCH.

Carex Bellardi, ALLIONI, Fl. Pedem., 1785; *Elyna Bellardi*, KOCH, Beitr. Fl. Orient., 1848; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; BRITTON & BROWN, Ill. Fl.; *E. spicata*, SCHRADER, Fl. Germ.; HOOKER, Fl. Bor. Amer.; LEDEBOUR, Fl. Ross.; SIMMONS, Prel. Rep. et Bot. Arb.; *Kobresia scirpina*, WILLDENOW, Sp. plant.; GREELY, Rep.; KJELLMAN, Fan. Vestesk. land.

Fig. Fl. Dan., T. 2427; Sv. Bot., T. 527.

The very great resemblance between this plant and *Carex nardina* may have caused me to overlook it in the Hayes Sound region during the first year of the expedition. I became aware of its occurrence first on finding it mixed in among specimens of that plant collected at Foulke Fjord, 1899. Later, when looking for it, I found them together in

many localities in southern Ellesmereland and a specimen from Hayes Sound was also found hiding among *C. nardina*. It prefers the same localities as *C. nardina*, dry gravelly slopes, dry rock-ledges and clefts of the rock. Flowered late.

Occurrence. Grinnell Land: Discovery Harbour (GREELY). Hayes Sound: "Fort Juliane" (676); probably spread. South coast: Fråm Fjord in several places (1607, 1664); Harbour Fjord, Big Valley, Spade Point, Lake Valley (2539), "green patch" (2236, 3995), Barren Vallies, Western sound, Sir Inglis Peak; Goose Fjord, at 4th winter quarters (3790).

Distribution: Northern East Greenland, West Greenland, (not hitherto found elsewhere in the Arctic American Archipelago), Arctic America, Rocky Mountains to Colorado, Alaska, St. Lawrence Island, East Siberia, mountains of Central Asia, Caucasus, Northern Europe, Central and Southern European mountains, Iceland.

Eriophorum Scheuchzeri, HOPPE.

E. Scheuchzeri, HOPPE, Arten d. Wollgr., 1800; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *E. capitatum*, HOST, Ic. descr. gram. Austr.; HART, Bot. Br. Pol. Exp.; HOOKER, Fl. Bor. Amer.; *E. cap.* var. *Scheuchzeri*, HART, l. c.; *E. vaginatum*, HART, l. c.; et alii, non LINNAEUS.

Fig. Sv. Bot., T. 426; Fl. Dan., T. 1502.

A confusion between this species and *E. vaginatum* seems to have arisen rather often, and the latter has thus been reported from many places, where really *E. Scheuchzeri* alone grows. As far as I can judge, Novaja Semlja and some places on the North coast of Asia, perhaps also inside Bering Straits on the American side, are the only true arctic stations where *E. vaginatum* is really found. Indeed I have not had any opportunity of revising the specimens from the KANE and HAYES expedition referred by DURAND to *E. vaginatum*, but as HART, who has also recorded that species has in fact collected only *E. Scheuchzeri*, as I have seen in the London collections, I do not hesitate to refer the plant from Gale Point (DURAND, Enum. pl. Smith S., p. 95) to the last-mentioned species, as also all which is recorded as *E. vaginatum* from Greenland (cf. SIMMONS, Dan. Greenl. pl., p. 473).

I think the error is in great part due to the indications in literature about the sheaths of the culm, which are said to be inflated in *E. vaginatum* but not in *E. Scheuchzeri*; as a fact also the latter has

much-inflated, leafless sheaths on the culm. In the living state, both species can immediately be distinguished by their different manner of growth, but herbarium specimens also are easily enough separated. The Ellesmereland specimens always had pure white wool.

E. Scheuchzeri grew in wet clay plains, swamps and small lakes often in rather deep water as well as in pools, where it developed numerous leafy shoots besides the culms from its creeping rhizome. It flowered rather late, hardly before the end of July, but very soon had developed fruit.

Occurrence. Grinnell Land, Discovery Harbour, Shift Rudder Bay (HART). Hayes Sound region: interior of Beitstad Fjord, Skräling Island (1364), Cape Viele, "Deserted Village" (HART), Lastraea Valley, Fram Harbour (1130). Southern East coast: Gale Point (HAYES). South coast: Fram Fjord (abundant, 1601), Harbour Fjord, Big Valley, Spade Point, Barren Vallies (abundant); Goose Fjord; East of 3rd quarters and in the bottom valley. West coast: Lands End (2849).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America down to Labrador, New Foundland, Manitoba, Oregon, Rocky Mountains, Sitcha, Alaska, Unalaschka, St. Lawrence Island, Siberia, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Central and Southern European mountains, Iceland.

Eriophorum polystachium, L.

E. polystachium, LINNAEUS, Sp. plant., ex p., 1753, Fl. Lapp., Fl. suec., excl. β et γ; OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; NEUMAN & AHLFVENGREN, Sv. Fl.; ASCHERSON & GRAEBNER, Fl. Nordostd. Flachl.; non TORREY, Mon. Cyp.; nec HOOKER, Fl. Bor. Amer.; nec BRITTON & BROWN, Ill. Fl.; *E. polyst.* var. *elatior*, HART, Bot. Br. Pol. Exp.; *E. angustifolium*, LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; GREELY, Rep.; HOOKER, l. c.; TORREY, l. c.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; HARTMAN, Skand. Fl.; A. BLYTT, Norg. Fl.

Fig. Fl. Dan., T. 1442; Sv. Bot., T. 490.

As the above synonyms show several authors in later times have adopted the Linnaean name *E. polystachium* for the plant, which has usually gone under the name *E. angustifolium*, ROTH. This doubtless is a right measure, provided only that it can be proved that LINNAEUS has looked upon it as the typical *E. polystachium*. I have nowhere found a detailed examination of the question, and I have therefore thought it best to undertake it. In Sp. plant., Ed. 1, p. 52, only *E. polystachium* is set up without any varieties, viz., no difference is here made between the three species which have afterwards been found to

form the original Linnaean one. But LINNAEUS himself, two years later in Fl. Suec., Ed. 2, p. 17, established two varieties β and γ, which have, however, got no names. But here, under the main form, is a quotation from his Fl. Lapp., p. 22, which shows LINNAEUS to have looked upon the Lapland form as the main species. But that is the plant commonly called *E. angustifolium*, and consequently according to priority the name *E. polystachium* of LINNAEUS must be used for that. From the other quotations I have not been able to draw any inference, as the works in question have either not been at my disposal or have yielded no information.

But under β is quoted: TOURNEFORT, Inst. rei herb., p. 664, "Lin-agrostis panicula minore", and in the work of TOURNEFORT again a reference is found to TABERNAEMONTANUS, Ic. plant., p. 230, a figure which doubtless must be referred to *E. latifolium*, HOPPE. By this, I think, it may be inferred that LINNAEUS has by his β meant the last-mentioned species notwithstanding that he has in the same place another quotation: VAILLANT, Bot. paris., T. 16, fig. 1, which seems to point in another direction. The fig. 1 of VAILLANT, l. c., namely depicts *E. angustifolium*, the fig. 2 on the contrary, *E. latifolium*, and it can only be thought that LINNAEUS has by mistake quoted fig. 1 insteed of fig. 2, the more so, as VAILLANT quotes TOURNEFORT'S "Linagrostis panicula minore" to fig. 2, and "Lin. pan. majore" to fig. 1.

But even if it is taken for granted that LINNAEUS has had in view as α the *E. angustifolium* of lather authors, and as β the *E. latifolium*, we can only say, that the former ought to be called *E. polystachium*, L., and it seems still doubtful if the original *E. angustifolium* of ROTH, Tent. Fl. Germ., is the same plant. The author gives a description of his species which is on the whole little satisfying, but nevertheless contains something which can hardly have reference to any other plant than that which we usually call *E. gracile*, KOCH, viz.: — "Foliis angustioribus, latitudine fere culmi, canaliculato triquetris". A quotation is also met with here from SCHEUCHZER, Agrostogr., p. 308, "Linagrostis palustris angustifolia, panicula sparsa, pappo rariore", which quotation LINNAEUS has under his γ, and which doubtless is to be referred to "*E. gracile*". The name *gracile* is first used by KOCH in ROTH, Catal. Bot., append., and here a description is given, which leaves no doubt about the plant in view, even though some of the quotations which accompany it can hardly be brought into accord with the description. Especially this is the case with VAILLANT, l. c., T. 16, fig. 2, about which KOCH says "bona!" notwithstanding that it represents an un-

doubted *E. latifolium*. There is still another name for the same plant, also from 1800, viz., *E. triquetrum*, HOPPE, Arten. d. Wollgr. Besides HOPPE here has *E. angustifolium*, which he identifies with the *E. polystachium* β of LINNAEUS and with the above quotation from SCHEUCHZER, Agrostogr., p. 308 (which LINNAEUS himself referred to his γ), and also *E. latifolium*, which he identifies with the α of LINNAEUS and with the "Linagrostis panicula ampliore" of SCHEUCHZER, Agrostogr., p. 306.

Even though perhaps ROTH and KOCH have had no clear idea about the species, I think it may be inferred from the above examination, that the right names for the three plants must be *E. polystachium*, L., *E. latifolium*, HOPPE, and *E. angustifolium*, ROTH, the latter with the synonyms *E. gracile*, KOCH, and *E. triquetrum*, HOPPE.

As already mentioned, later european authors have generally identified the main form of the *E. polystachium*, L., with the plant formerly called *E. angustifolium*, and they have taken up the Linnaean name for it again, but american florists have since the time of PURSH held another view of the matter. This author has, in his Fl. Am. sept., 1, p. 58, both *E. polystachium* and *E. angustifolium*. As his quotation of Engl. Bot., T. 563, shows, he uses the first name partly at least, for *E. latifolium*, that is to say, he uses the names in the same sense as ROTH, and later authors have followed him, for instance TORREY and BRITTON & BROWN. The cause for this may be sought partly in an error about that which LINNAEUS regarded as the main form of his species, but also in a new difficulty which arises therein, that the two species, clearly distinct as they are in Europe in several constant characters, are not so in America. There intermediate forms are found, which have puzzled the florists a good deal. ROB. BROWN, Chlor. Melv., p. 26, says that the arctic *Eriophorum* specimens that he had had for examination were "quasi mediae inter *E. angustifolium* et *E. polystachium* forsan ab utroque distinctae". Among them he found forms with glabrous as well as with scabrous peduncles to the spikes.

This also is the case with my specimens, even though quite glabrous peduncles are rarely found, and the same variation is met with in the Greenland specimens of the Copenhagen herbarium. The arctic form must, however, because of its terete culms, flat spike-peduncles, long, channeled leaves, large spikes and fusiform achenes, doubtless be referable to *E. polystachium* in the sense in which it is here taken. How the southern american forms ought to be placed is another question (cf. FERNALD, N. Am. Erioph.),

Ellesmereland specimens generally had more or less dark, even quite black, scales and consequently represent the f. *tristis*, (TH. FR.) OSTENF.

In swamps the species was never lacking in any place I visited, and also in other more or less wet localities, it was generally found. From the end of June it was generally in flower, and soon the woolly fruiting spikes appeared.

Occurrence. North Coast: Floeberg Beach (HART). Grinnell Land: Discovery Harbour (HART, GREELY). Hayes Sound region, very common, specimens from: Eskimopolis (848), Bedford Pim Island (266, 447, 1252). South coast, also very common, specimens from: Fram Fjord (1621), Harbour Fjord (2538), Wolf Valley in the Goose Fjord (3953). West coast: Reindeer Cove and Lands End.

Distribution: all over the Arctic Regions (except Franz Joseph Land and Jan Mayen) and far down in the temperate parts, at least of Europe and Asia (but perhaps not in America).

Gramineae.

Agropyrum violaceum, (HORNEM.) LANGE.

Triticum violaceum, HORNEMANN, Fl. Dan., Fasc. 35, 1832; SCHEÜTZ, Pl. vasc. Jeniss.; *Agropyrum violaceum*, LANGE, Consp. Fl. Groenl.; OSTENFELD, Fl. Arct.; BRITTON & BROWN, Ill. Fl.; *A. dasystachium* var. *violaceum*, GREELY, Rep.
Fig. Fl. Dan., T. 2044.

As there can hardly be any possibility of a mistake, I must take for good the statement of GREELY, l. c., even without having seen a specimen. No notes about habitat are given, only that the specimens are said to be from 2 to 7 inches high.

Occurrence. Grinnell Land, Discovery Harbour in Lady Franklin Bay (GREELY).

Distribution: West Greenland, Canada, mountains of the North Western United States, Rocky Mountains to Colorado, British Columbia (GELERT, in OSTENFELD, l. c., thinks the varieties *purpurascens* and *nanum* of *A. repens*, which HOOKER mentions in Fl. Bor. Amer., 2., p. 254, from Arctic America, collected by RICHARDSON, to be probably referable here, but I have seen no *T. violaceum* from Arctic America in the London collections); mouth of the Yenissei River, Northern Finland and Scandinavia, Iceland.

Festuca ovina, L.

F. ovina, LINNAEUS, Sp. plant., 1753; HACKEL, Mon. Fest.; OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HOOKER, Fl. Bor. Amer.; FEILDEN, Fl. pl. Nov. Zeml.; *F. ovina* var. *violacea*, MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; non *F. violacea*, GAUDIN, Agrostol. Helv.

Fig. Fl. Dan., T. 2462.

This species is widely distributed and is rather variable; many species and varieties have been established within its form-series, some also on arctic specimens. They are, however, very difficult to define, as they are in all probability principally due to local conditions.

The most common form in Ellesmereland is:

Var. *brevifolia*, (R. BR.) HART.

F. brevifolia, R. BROWN, Chlor. Melv., 1823; NATHORST, N. W. Grönl.; HOOKER, Fl. Bor. Amer.; *F. ovina *brevifolia*, HACKEL, Mon. Fest.; DUSÉN, Gefässpfl. Ostgrönl.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *F. ovina* var. *brevifolia*, HART, Bot. Br. Pol. Exp.; *F. ovina *borealis*, LANGE, Consp. Fl. Groenl.; non *F. borealis*, MERTENS & KOCH, Deutschl. Fl.; nec FLEISCHER & LINDEMANN, Fl. Ostseeprov.; nec HOOKER, Fl. Bor. Amer.

Fig. Fl. Dan., T. 2706.

The description which ROB. BROWN gives of this form runs as follows: — "*Festuca brevifolia*, racemo subsimplici, erecto, flosculis teretibus supra scabriusculis, arista duplo longioribus, foliis setaceis vaginisque laevibus; culmeo multoties breviore vagina sua laxiuscula". To this may further be added, that the spikelets are rather large, generally tinged with violet or purple. It is, however, not right to describe the sheaths as closed entirely, or almost in their whole length, as HACKEL does (l. c., p. 84 and 117), as I have found in examining the original specimens from Melville Island in the Nat. Hist. Mus.

To this I think the var. *violacea* of the authors quoted above may be referred. The true *F. violacea*, GAUD., is distinguished by an open panicle, short awns etc. (GAUDIN, Agrostol. Helv., p. 231), and is by HACKEL referred to the form-series of *F. rubra*. From var. *alpina*, (SUTER), found in the Alps and other european mountains, the var. *brevifolia*, is principally distinguished by its coarse growth, larger and coarser spikelets, and by the very short lamina of the uppermost culm-leaf. However forms are found that come rather near to it (1106, 1150). In richer soil the leaves of the culm as well as of the shoots become longer and broader (1862, 2587, 3999). Rather commonly spread in slopes and grassy fields, rarer in open gravel or clay fields. In flower about the end of June.

Occurrence. North coast: Floeberg Beach (HART). Grinnell Land: Discovery Harbour (HART), Cape Frazer (HAYES). Hayes Sound region, common, specimens form: Beitstad Fjord (489), Skräling Island (1362), Cape Rutherford (311, 1150), Fram Harbour (1106), Cocked Hat Island (1263), Bedford Pim Island (273, 1186, 1260). South coast; common, specimens from: Fram Fjord (1605, 1669); Harbour Fjord (1862, 2152, 2444, 2587, 3999), Goose Fjord (2877, 3501, 3642). West coast: Nordstrand (2111, leg. FOSHEIM), between Eidsfjord and Baumann Fjord, Coal Bay.

Var. *supina*, (SCHUR) HACKEL.

F. supina, SCHUR, Enum. pl. Trans., 1866; *F. ovina *euovina* var. *supina*, HACKEL, l. c.; KRUUSE, Jan May.

My specimens which may be taken to belong to the sub-variety *grandiflora* of HACKEL, are distinguished by their short, generally prostrate culm, which often does not reach over the leaves of the shoots; by few-spiked panicles, coarse violet or purple spikelets, and by coarser leaves than in the preceding form to which, however, it is allied by intermediate forms. In Ellesmereland it is not proliferous as is often elsewhere the case. I think that its manner of growth, in looser tufts with the radiating, prostrate, short culms, is directly due to the habitat. It grows in gravel- or clay-plains, where it will often be buried at the time when the snow melts. It seems also to be very late in flowering.

Occurrence. South coast, in the plains at the interior of the fjords: Fram Fjord (1637), South Cape Fjord (2062), Muskox Fjord (2147); Goose Fjord, valley at the bottom (3263), east of 3rd quarters (3437, 3486), Midday Knoll (4235).

Distribution (main species and forms): all over the Arctic Regions (except Franz Joseph Land ?), in America at least down to Winipeg, New Jersey, Colorado and California, in Asia down to the Himalayas, over the whole of Europe. The var. *brevifolia* has principially an arctic distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Spitsbergen, but in America it goes down also to the Rocky Mountains and the Wahsatch Mountains in Utah. The var. *supina* is most spread in the alpine region of southern mountains but is also recorded from Greenland, Novaja Semlja, Spitsbergen and Jan Mayen.

Festuca rubra, L.

This species is entered in the list of GREELY, Rep., 2, p. 15, but as the common *F. ovina* is missing in his list, I am most inclined to refer his statement to *F. ovina* var. *brevifolia*, which was already recorded from Discovery Harbour by HART.

Glyceria Vahliana, (LIEBM.) TH. FRIES.

Poa Vahliana, LIEBMANN, Fl. Dan., Fasc. 41, 1845; *G. Vahliana*, TH. M. FRIES, Till. Spetsb. Fan. Fl., 1869; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; KJELLMAN, in Vegaexp.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *G. Kjellmani*, LANGE, in KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; KJELLMAN, in Vegaexp.
Fig. Fl. Dan., T. 2401, KJELLMAN & LUNDSTRÖM, l. c., T. 7.

Found very sporadically in wet, clayey localities.

Occurrence. Hayes Sound region, sparingly, perhaps overlooked; Rutherford Vallies (320), Bedford Pim Island on the Rice Strait side (4239). South coast, not quite so rare; Fram Fjord in the Western valley (1604); at the anchorage in the Harbour Fjord (1800), and at the Barren Vallies (2393), valley on the east side of Sir Inglis Peak (2188); Goose Fjord, east of 3rd quarters (4244), Midday Knoll (3502). West coast: Lands End (2849).

Distribution: East Greenland (Scoresby Sound), West Greenland, (Umanak), Arctic America (a specimen from Ross's voyage 1829—33, probably from Boothia Felix, in the Nat. Hist. Mus., was the only american one I could find), Siberian coast (Dickson Harbour) Novaja Semlja, Spitsbergen. In all probability the plant must have been overlooked by the travellers in many other places.

Glyceria angustata, (R. BR.) TH. FR.

Poa angustata, R. BROWN, Chlor. Melv., 1823; HOOKER, Fl. Bor. Amer.; *G. angustata*, TH. M. FRIES, Till. Spetsb. Fan. Fl., 1869; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl. (?); HART, Bot. Br. Pol. Exp., ex p.; MACOUN, Pl. Pribilof; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *G. maritima* var. *arenaria*, BERLIN, Kärlv. sv. exp. Grönl., non FRIES; *G. vaginata* var. *contracta*, LANGE, in KJELLMAN, Sibir. nordk. fan.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; *G. Vahliana*, TH. HOLM, Nov. Seml. Veg.; *Atropis angustata*, LEDEBOUR, Fl. Ross. (?).
Fig. Fl. Dan., T. 3006.

It is only with great hesitation that I uphold this as a species; there is much that tells in favour of its being reduced to a form of the

following species. However in its extreme forms, it its characterized by its narrow leaves, the very contracted panicles and small spikelets. The description of ROB. BROWN entirely applies to my specimens and I think that they represent the plant which he has described, notwithstanding there are specimens in the material from Melville Island (in the Nat. Hist. Mus.). that come rather near to *G. distans*. But others are doubtless the original plant of the description. GELERT (l. c., p. 126 and 128) in my opinion, has laid too much stress upon the number of panicle-branches from the lower node. Often the peduncles of most spikelets go directly out from the node as it seems, and then the number often reaches five or more. Such, for instance, is the case with an individual belonging to the same specimen as the original of one of the figures in the Fl. Dan., T. 3006 (from Spitsbergen, Kingsbay, 1864, TH. FRIES). More certain it seems to be, that the number of flowers in the spikelet only reaches four to five; the Fl. Dan. figure, however, also differs in this point.

The best distinguishing mark between this and the following seems to lie in the inconspicuous nerves of the lower pale. The ligule is generally somewhat longer and more pointed than in the following species. The leaves are generally narrower and shorter, the sheaths less inflated.

HART, l. c., p. 10, gives a whole collection of different names after *G. angustata*, and his specimens show a corresponding variety of different plants (*G. distans* var. *arctica*, *Poa glauca*, and in the Kew herbarium a single *G. angustata*).

Grows in open clay-plains and seems to be very rare, but may perhaps have been overlooked and confounded with the following species.

Occurrence. Grinnell Land: Discovery Harbour (HART !). South coast: Fram Fjord in the Western valley (1633), Goose Fjord, east of 3rd quarters (4247). West coast: Coal Bay in Baumann Fjord (?).

Distribution: this is difficult to give, but I may record the localities from whence I have seen specimens, or where GELERT has had an opportunity of verifying the older statements: East Greenland (specimens from Kjerulf Fjord, which KRUUSE, l. c., p. 202, refers here, most probably represent *G. tenella*, as I have seen in the Stockholm herbarium), West Greenland (the specimens of NATHORST, N. W. Grönl., p. 27, from Ivsugisok belong to the following), Arctic American Archipelago: Baffin Land, Cumberland Sound, (TAYLOR !), Digges Island, Igloolik

(PARRY !), Melville Island (PARRY !); Arctic America (Boothia Felix (?), Ross, voyage 1829—33 !); Alaska (?); Pribilof Islands (?); Land of the Chukches; Arctic coast of Asia; Novaja Semlja (!); Spitsbergen (!).

Glyceria distans, (L.) WAHLENB.

Poa distans, LINNAEUS, Mantissa I, 1767; HOOKER, Fl. Bor. Amer.; *G. distans,* WAHLENBERG, Fl. Upsal., 1820; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; *G. arctica,* HOOKER, l. c.; LANGE, Consp. Fl. Groenl.; *G. vaginata,* LANGE, Fl. Dan., Fasc. 44, et l. c.; *G. angustata,* HART, Bot. Br. Pol. Exp., ex p.; *Atropis distans,* LEDEBOUR, Fl. Ross.; *Puccinellia distans,* BRITTON & BROWN, Ill. Fl.

Fig. HOOKER, l. c., 2, T. 229; Fl. Dan., T. 2582, 2583.

Indeed, the arctic *Glyceriae* which, following the example of GELERT, I have here referred to *G. distans,* are rather different from one another, the typical form with the long, reflexed panicle-branches is hardly found in any arctic station, and I have seen transitions from it to the arctic forms only from Iceland, but nevertheless I think they must all be united, as there are no clear distinguishing marks between them. Among my specimens, there are two forms, var. *arctica,* (HOOK.) GEL., and var. *vaginata,* (LANGE) GEL. The third Greenland form, which LANGE has identified with *Sclerochloa Borreri,* BAB., I have not found.

G. distans is a rather common grass especially in clay plains, also in rookeries, but generally not where the vegetation is very dense. Flowered late, hardly before the end of July.

Occurrence. Var. *vaginata:* South coast, Goose Fjord, rather common in the clay fields; specimens from Ptarmigan Gorge (3387), east of 3rd quarters (3436, 3478), Yellow Hill (3585), Castle Point (3819). Var. *arctica*: Grinnell Land: Discovery Harbour (HART !). Hayes Sound region: Skräling Island (1378), Fram Harbour (4240), Cocked Hat Island (1890), Brevoort Island (1209), South coast: bottom valley of Fram Fjord (1668), Barren Vallies in Harbour Fjord (2394), east side of Muskox Fjord (2149). *G. distans* is further noted from several places in the Goose Fjord and from the West coast; along the Hell Gate to Lands End, between Eidsfjord and Baumann Fjord, Coal Bay; probably these localities may be referred to var. *vaginata.*

Distribution. The arctic varieties seem to be distributed only in Greenland (both coasts), Arctic American Archipelago, Arctic coast of America, Arctic coast of Asia, Arctic Russia. Allied forms are found in Iceland and the Faeroes. The main form is spread all over Europe,

down to Northern Africa, in Northern and Central Asia, more rare in America, where it is said to be introduced from Europe (BRITTON & BROWN, l. c., 1, p. 214).

Glyceria maritima, (HUDS.) WAHLB.
var. *reptans*, (HARTM.) m.

Molinia distans var. *reptans*, HARTMAN, Excursions fl., 1846; *G. distans* var. *reptans*, HARTMAN, Skand. Fl., Ed. 5; *G. reptans*, KROK, Finm. Fan.; A. BLYTT, Norg. Fl.; *Catabrosa vilfoidea*, ANDERSSON, in MALMGREN, Spetsb. Fan. Fl.; *G. vilfoidea*, TH. FRIES, Till. Spetsb. Fan. Fl.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; MACOUN, Pl. Pribilof; *G. maritima* (*vilfoidea*), SIMMONS, Bot. Arb.; *G. maritima* f. *vilfoidea*, GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.

Fig. TH. FRIES, l. c., T. 4; Fl. Dan., T. 2883.

This plant has lately, in the above-quoted paper of KROK, been treated in detail and described, so as only to leave for me to refer to that treatise. But, as the opinion which the author has formed as to the position of the plant is different from mine, I must state my reasons for seeing in *G. reptans* only the most stunted form of *G. maritima* which is naturally restricted principally to high-arctic tracts. It is connected with the main form by var. *arenaria*, FR., which is found in poorer localities further south in the area of the species. ANDERSSON, Skand. Gram., p. 61, says about this form and the main f. *palustris*, FR., that in seeing them together in a herbarium, one can hardly realise that they belong to the same species, so great is the difference between them. But when they are observed in their habitat, one will soon find innumerable intermediate forms, that make it impossible to distinguish them from one another. The description of the var. *arenaria* of FRIES, Mantissa, 2, p. 9, runs as follows: "pumila, culmis basi stolonibusque declinatis saepe radicantibus, foliis filiformi-convolutis, panicula simplici hinc tota spiciformi-contracta". And about its manner of growth it is said: "locis arenosis infestatis extimum mappae gramineae contiguae limitem versus oceanum sistens". ANDERSSON, l. c., further completes the description by stating that the spikelets are shorter than in the main form, which, I think, must signify, that the number of flowers is less. But the number of flowers in the spikelets both for KROK and O. DAHL (in the above-quoted flora of BLYTT) forms the principal mark of distinction between the two species.

However, it seems only natural that the number of flowers in the spikelet is reduced at the same time as the plant becomes smaller in

other parts. The original material from Spitsbergen, on which Andersson established his *Catabrosa vilfoidea* had only two-flowered spikelets — hence the referring to *Catabrosa* — but in the Copenhagen herbarium I have seen as many as six flowers in a spikelet, indeed in rather large specimens, that it would, perhaps, be better to refer to var. *arenaria*. Very often the reduction goes still further and no panicles at all are developed; this is rather often to be seen even in more southern localities, viz., in plants referred to var. *arenaria*, but in arctic localities it becomes still more common, and generally only single inflorescences are to be found. I cannot see that a plant thus continually connected with another can rightly be looked upon as a separate species.

Even if a single panicle is developed, that does not imply that ripe seed will be developed, probably that is rarely the case, and the plant is naturally cast upon vegetative propagation for its continued existence and spreading. Consequently the creeping radicant stolons are developed to a considerably larger extent than in a form from more favorable localities. Fragments of the stolons will easily be spread by the ice, which often reaches up to the growing-places of the plant and which can detach parts of it and transport them. For the very few shore plants of the Arctic Regions, this mode of transport may probably play an important part, as they are able to sustain a longer immersion in salt water.

My Ellesmereland specimens are all of them typical var. *reptans* with small leaves and densely radicant stolons, but from Foulke Fjord I have specimens that come nearer to var. *arenaria* as they are considerably larger in growth and have the radicant stolons less developed. But the flowering was very scarce. In Ellesmereland the plant was always sterile.

It grew always near the shore-line, sometimes in gravelly places, generally in clay or mud soil, around lagoons, &c.

Occurrence. Hayes Sound region: Skräling Island (1386), Twin Glacier Valley, Cape Viele, Cape Rutherford (450, 1155), Cocked Hat Island (1287). South coast: Fram Fjord (1634); Harbour Fjord at the "green patch"; Muskox Fjord; Goose Fjord at 3rd quarters, Yellow Hill and 4th quarters; Walrus Fjord.

Distribution: East and West Greenland, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Novaja Semlja, Spitsbergen, Finmark. The main species is spread on the shores of America, Asia and Europe, and also found in salt-localities inland, however I doubt whether some of the localities mentioned for *Atropis maritima* in Ledebour, Fl. Ross., 4, p. 390, can really be referred to this.

Dupontia Fisheri, R. Br.

D. Fisheri, R. Brown, Chlor. Melv., 1823; Gelert, in Ostenfeld, Fl. Arct.; Simmons, Bot. Arb.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Kjellman, in Vegaexp.; Feilden, Fl. pl. Nov. Zeml.; Andersson & Hesselman, Spetsb. kärlv.; *D. psilosantha*, Ruprecht, Symb. pl. Ross.; Ledebour, l. c.; Lange, Consp. Fl. Groenl.; Macoun, Pl. Pribilof; *Colpodium humile*, Lange, in Holm, Nov. Zeml. Veg.

Fig. Fl. Dan., T. 2521; Ruprecht, l. c., T. 6.

As Nathorst (Nya bidr.) and Gelert (l. c.) have pointed out, *D. psilosantha* cannot be separated from *D. Fisheri*. My specimens agree most with the descriptions of the former. I first found this plant immediately before our departure from the Goose Fjord, and was only able to snatch a few straws of it on my way to the boat. It seems probable that it flowers rarely, and has not therefore been observed, either in other localities, or where it was then found, in wet mossy places below the Falcon Cliff, a locality which I had visited previously several times. I am very much inclined to think that I saw it also in the rich vegetation of the large valley on the West side of the Walrus Fjord, which, however, was passed in a forced march only, a fact which is the more regrettable, as there would probably have been much of interest to find. In other arctic tracts, especially in Greenland, the plant is rare and sporadically appearing.

Occurrence. South coast: Goose Fjord, below Falcon Cliff (4236).

Distribution: Northern Danish West Greenland, Arctic American Archipelago (specimens seen from Baffin Land and the original ones from Melville Island), Arctic America, Labrador, Hudson Bay region, Alaska, Pribilof Islands, St. Lawrence Island, Land of the Chukches, Arctic Siberia, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land.

Poa glauca, Vahl.

P. glauca, M. Vahl, in Fl. Dan., 1790; Gelert, in Ostenfeld, Fl. Arct.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Kjellman, in Vegaexp.; Nathorst, Nya bidr.; Britton & Brown, Ill. Fl.; *P. caesia*, Smith, Fl. Britt.; Greely, Rep.; Macoun, Pl. Pribilof; Ledebour, Fl. Ross.; Hartman, Skand. Fl.; A. Blytt, Norg. Fl.; *P. nemoralis*, Hart, Bot. Br. Pol. Exp.; *Glyceria angustata*, Hart, l. c., ex p.

Fig. Fl. Dan., T. 964; Tab. nostra 9, fig. 5–6.

Lange, l. c., p. 173, has explained why the name of Vahl is to be used for this plant instead of that of Smith, notwithstanding the fact that the former has reference originally to one form only of the many

in which the species occurs. I have had a good deal of trouble in coming to a conclusion as to how my material was to be arranged, and only with hesitation I place here two of the forms mentioned below.

It grows most commonly in slopes and rookeries, where it attains its best development, but it is also often found in poorer localities, such as gravel or clay fields, where it becomes more stunted, with smaller and more contracted panicles and smaller spikelets. Some forms may resemble *P. alpina* rather much, and have probably led to the recording of that species by several authors, as I shall discuss below.

Besides the common form, I have among my material also a large flourishing form which may be called var. *elatior*, (ANDERSS.) LANGE, and another quite opposite form which was found in clay fields in some places at the Jones Sound coast. I think this is sufficiently characteristic to deserve a description and a name.

Var. *tenuior*, n. var.: dense caespitosa; culmi circa 20 cm. alti, graciles, erecti, infra medium foliosa; folia plana, culmum latitudine duplo plusve superantia, ligula elongata, acutiuscula, vulgo integra. Panicula angusta, contracta, vel ramis infimis patulis, solitariis vel duobus; capillaceis vel parum robustioribus. Spiculae 1 — pauciflorae, anguste lanceolatae, violascentes, quam in forma vulgari multo minores.

I was, for a time, inclined to identify this form with *P. attenuata*, TRINIUS, in BUNGE, Verz. Altai Pfl., p. 9, but that plant should have the leaves "perangusta, subconvoluta", which does not agree with my plant, which must at present be regarded as a variety of *P. glauca*.

In Fram Fjord, I found in loose sand in the river-valley, a form which agrees with var. *arenaria*, HARTZ, Fan. og Karkr., p. 350, but for the longer and more pointed ligule of the Ellesmereland specimens.

I have still another form in my collection, which must for the time be referred to *P. glauca*, as a member of its large form-series, even if it should perhaps by right have a specific name of its own. It agrees quite with the description of LANGE's var *atroviolacea*, l. c., p. 173, but for its being proliferous, and also in comparing it with the originals of LANGE's plant in the Copenhagen herbarium, I have found it to be like them in every other respect, even in points not mentioned in the description. LANGE has only given his plant the rank of variety, notwithstanding which, he says about it and his other variety *pallida*: — "quae tam habita quam pluribus characteribus a typo ita recedunt, ut facile species distinctas crederem".

The variety *atroviolacea* is (LANGE, l. c.) described as follows: — "Spithamea, rigida, fol. planis, caulino superiore patulo, basin in-

florescentiae subattingente, ligula elongata; panincula virginea dense coarctata, spiculis subbifloris, glumis longe acuminatis, atroviolaceis, paleis basi viridibus albomarginatis, apice purpureo marginatis".

It must also seem peculiar that the characters are always found together which I deem most important, viz., narrow spikelets with long pointed glumes and a long pointed or erose ligule. The culm is rather short and stout, and the proliferous Ellesmereland specimens have generally only one transformed flower. As no proliferous form of *P. glauca* is previously described, however common this phenomenon may otherwise be within the genus, I was rather doubtful at first whether the plant could belong to it, and I was for a time very much inclined to refer it to *P. stenantha*, TRINIUS, Gram. gen. et spec., the description of which, such as it is rendered by HOOKER, Flor. Bor. Amer., and GELERT, l. c., seemed to apply rather well to it. Moreover KJELLMAN, As. Beringss. Fan., p. 558, presumes that the *P. stenantha* from Senjavin Bay mentioned by LEDEBOUR, l. c., might in fact be *P. glauca*. Indeed I think it very probable that the proliferous form of the latter species is found in the Bering Strait region, but the real *P. stenantha*, which is also very often proliferous, is rather a different plant, as I immediately found when, in London I had access to the original description of TRINIUS and saw a great many specimens.

The original specimens of LANGE's var. *atroviolacea*, to which I think it best to refer my plant, are from Umanak in Danish Greenland, collected by RINK, and also specimens brought home by J. VAHL from the same tract fully agree with mine, except for the proliferous spikelets of the latter. But even if there are specimens collected in other parts of Greenland, by far the greater part of the specimens that are referred to it in the Copenhagen herbarium do not really belong to it. Even LANGE himself, seems later on to have laid stress only upon the character expressed in the name "*atroviolacea*". The smaller of the two grasses figured in Suppl. Fl. Dan., T. 65 *(P. stricta)* may probably be referred to the present variety.

My specimens of var. *atroviolacea* f. *prolifera* as it may be called, are from a rather limited area in the Goose Fjord, where it grew in fields and slopes of stiff clay.

Occurrence. F. *typica*. Grinnell Land, Discovery Harbour (HART !). Hayes Sound region: mouth of Flagler Fjord, Twin Glacier Valley (HART 867), Cape Rutherford (302), Fram Harbour (1105), Cocked Hat Island (1262), Bedford Pim Island (1256). South coast: Fram Fjord (1667); Harbour Fjord, "green patch" (2157), slopes east of the anchorage

(2230), Barren Vallies (2392), Western sound (2447), Seagull Rock (2597), Big Valley, Sir Inglis Peak; Muskox Fjord; Goose Fjord, Gull Cove, Falcon Cliff (2883).

Var. *elatior.* South coast: Harbour Fjord, "green patch" at the anchorage (4004), valley on Sir Inglis Peak (2185).

Var. *tenuior.* South coast: Fram Fjord (1628), Goose Fjord at Midday Knoll (3504, 3644).

Var. *arenaria.* South coast: Fram Fjord in the Western valley (4243).

Var. *atroviolacea* f. *prolifera.* South coast: Goose Fjord, at the Yellow Hill (3587) and Midday Knoll (3500, 3643).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America and down to White Mountains of New Hampshire, Rocky Mountains, Alaska, Land of the Chukches, Arctic Siberia, Altai, Arctic Russia, Spitsbergen, Northern Scandinavia, mountains of Central Europe, Great Britain, Iceland.

Poa abbreviata, R. Br.

P. abbreviata, R. Brown, Chlor. Melv., 1823; Gelert, in Ostenfeld, Fl. Arct.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl; Greely, Rep.; Simmons, Bot. Arb.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Macoun, Pl. Pribilof; Ledebour, Fl. Ross.; Feilden, Fl. pl. Nov. Zeml.; Andersson & Hesselman, Spetsb. kärlv.

Fig. Fl. Dan., T. 2884.

This high-arctic plant, which in Greenland belongs to the rare ones that are only found in the northern parts, was in Ellesmereland fairly common, and I had an opportunity of collecting a rich material of it. I cannot find the least difficulty in separating it from either *P. cenisia* or *P. glauca,* to either of which it is often referred (cf. Gelert, l. c., and Hart, Bot. Br. Pol. Exp.).

It grew principally in gravelly slopes, in rock fissures or among boulders, rarely in clayey soil or in a denser vegetation. It flowered rather late, rarely before the middle of July, but fruited richly.

Occurrence. North coast: Dumbbell Harbour (Feilden !), Floeberg Beach (Feilden !). Grinnell Land, Discovery Harbour (Hart !). Hayes Sound region: "Fort Juliane" (678), Beitstad Fjord, Skräling Island (1380), islet at Cape Viele (1345), Cape Rutherford (314, 1134), Fram Harbour (1104, 1131), Cocked Hat Island (1214), Bedford Pim Island (Cape Sabine (Feilden !), 438 1191, 1253). South coast: Fram Fjord (1610); Harbour Fjord at the Barren Vallies (2400); Muskox Fjord (2118,

2652); Goose Fjord, very common (2862, 2876, 2999, 3267, 3306, 3390 3503, 3573, 3586, 3640, 3957, 4246).

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Novaja Semlja, Spitsbergen, Franz Joseph Land.

Poa evagans, n. sp.

Laxe caespitosa — stolonifera, 8—12 cm. alta, glabra. Rhizoma tenue, ramis suberectis, vaginis persistentibus vestita. Folia angusta, involuta. Ligula protracta, acuminata, in foliorum culmi brevior, truncata vel paulo lacerata. Folia culmi 2—3, vagina longa inflata, lamina brevi, in superiore brevissima. Culmus strictus, infra medium foliatus. Panicula 2—3 cm. longa, densissime contracta, ovato-cylindracea, ramis brevibus, capillaribus, 1—3 spiculas gerentibus. Spiculae laxae, vulgo 3-florae. Glumae aequilongae ad basin purpurascentes, ceterum membranaceo-flavescentes, obsolete carinatae, trinerviae, apicem versus erosae. Paleae obtusae, glumis simillimae; inferior 5-nervia, ad basin pilis paucis, brevibus instructa, superior 3-nervia.

Fig. Tab. nostra 8, fig. 2—7.

In habit this grass differs rather much from the common type of a *Poa*, but there is a certain resemblance to *P. abbreviata*, and also to *P. glauca*, var. *arenaria*, in the company of which it grew. I think it is most nearly allied to *P. abbreviata* and the specific name has reference to the difference from that species in the built of the shoot-system. This manner of growth which may be said to hold the middle place between the caespitose and the creeping species of the genus, is doubtless due to the quality of the locality, loose moving sand. Generally a few leafy shoots and one or a couple of culms stood together in a little group, and in digging out the plant, it was found, that the rhizome-branches which were covered by sheaths of old leaves, converged downward to a common point of origin. Sometimes rhizome-branches would creep more horizontally for a while before they began to rise to the surface.

The leaves of the sterile shoots have rather narrow sheaths, and are narrow, rather stiff, involute. The sheaths of the culm leaves are longer, very much inflated. Their lamina is very short, especially in the topmost, where it may be represented only by a small point. Leaves and culm are entirely glabrous. The culm is stiff, erect and leafy only as far as the middle.

The panicle is densely contracted, almost cylindrical, tapering a little towards both ends. The branches from the lower nodes are about three, very short, thin, stiff, and glabrous, each carrying from one to three spikelets. The spikelets are very lax and during the anthesis — I have only seen it in that state — the flowers are spread open. Their number in the spikelet is generally three.

The glumes are equally long, the lower one is somewhat broader. and a greater part of it is purple-brown than in the upper one. The greater part of both, however, is membranaceous, of a yellowish, light-brown colour, the nerves reaching to about the middle, 3 in number. In the pales there are three stronger nerves that are visible through the membranaceous part almost to the blunted end, and besides there are two shorter and feebler ones in the lower pale. Only the basal part of the glume and the nerves are purple, the rest is membranaceous. At the base of the lower pale there are a few short hairs. In fruiting state the plant was not seen, but there were many old culms, where the glumes were generally all that was left of the whole spikelet; sometimes also a remnant of a withered flower was to be seen.

I am fully aware of the risk in establishing a new species in such a genus as *Poa,* but my plant certainly cannot be united to any other arctic species of the genus, and I have tried in vain to find specimens of it in the rich London collections, or to seek out a description of a species of *Poa* to which it could be referred. It may, however, be possible that *P. evagans* is spread in the Arctic Archipelago, and has been overlooked by the older English expeditions, that have never had any botanist among their members.

As already mentioned, this species grew, in the only locality where I found it, in loose moving sand in a river valley near the shore. When found August 26, 1899, it was in full flower.

Occurrence. South coast: Western Valley in Fram Fjord (4267).

Poa alpina, L.

This species is recorded from north-western Greenland and from Ellesmereland, but I have not found it, and I must admit that I have very little confidence in those statements. The Greenland specimens with one exception, are probably kept in some American collection, and such also is the case with the specimens upon which the statements of Greely and Wetherill are based (from Discovery Harbour, resp. "north side of Jones Sound" = neighbourhood of Fram Fjord). These

I have had no opportunity of forming an opinion about, but I do not think they are to be believed in, as the authors by whom these collections are treated have made rather many mistakes in other cases (except WETHERILL), and as there is a considerable probability that forms of *P. glauca* or *P. cenisia* which may bear a rather deceptive resemblance to *P. alpina*, might have been taken for it (cf. *P. cenisia*). This view receives considerable further support in the fact that no specimens from the localities mentioned for *P. alpina* by HART (Bot. Br. Pol. Exp., p. 41) are to be found in the collections at Kew and in the Nat. Hist. Museum. HART records *P. alpina* besides from Disco also from Bessels Bay in north-western Greenland, from Discovery Harbour and Walrus Island in Grinnell Land, and from Cape Sabine, but as no specimens exist to confirm his statements, I think that the species ought to be excluded from the Ellesmereland flora.

Poa laxa, HAENKE.

This species also is recorded by GREELY from Discovery Harbour, and HART has it as a form of *P. flexuosa*. I have, however, seen no specimens to bear out the later statement, and I think it most right to exclude this also from the flora, notwithstanding it must be admitted that the plant could perhaps have reached so far north. However, GELERT in OSTENFELD, Fl. Arct., p. 124, who gives several localities in the Arctic American Archipelago for it, has excluded Grinnell Land.

Poa cenisia, ALL.

P. cenisia, ALLIONI, Auct. Flor. Ped., 1789; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; GREELY, Rep.; BRITTON & BROWN, Ill. Fl.; LEDEBOUR, Fl. Ross.; HARTMAN, Skand. Fl.; KRUUSE, Jan May.; *P. flexuosa*, HOST, Ic. descr. gram. Austr.; WAHLENBERG, Fl. Carp.; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp., ex p.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; NATHORST, Nya bidr.; *P. arctica*, R. BROWN, Chlor. Melv.; GREELY, l. c.; HOOKER, l. c.; MACOUN, Pl. Pribilof; LEDEBOUR, l. c.; KJELLMAN & LUNDSTRÖM, Fan. Nov. Seml.; *P. filipes*, LANGE, l. c.; *P. trichopoda*, LANGE, Fl. Dan., Fasc. 49, et l. c.

Fig. Fl. Dan., T. 2529, 2885; HOST, l. c., T. 26; Sv. Bot., T. 704.

As for the definition of this species I can only agree with GELERT, l. c. It is rather difficult to keep apart from *P. pratensis*, from which it differs principally in characters of hahit. Proliferous forms can hardly be referred with certainty to either of them.

P. cenisia is one of the most common grasses in Ellesmereland and is rarely lacking in somewhat moist places, in slopes and rookeries; and, if only the water supply is sufficient, it is commonly found also in rockledges and in depressions of gravel- or clay-fields. Generally the culms stand more or less isolated and the creeping stolons are well developed, but in a dense vegetation it may go over to a rather caespitose mode of growth, with short stolons only (2653, 4000). I think that such forms have led to the statements about *P. alpina* mentioned above. I had made the same mistake myself during my stay in the Harbour Fjord, but afterwards it proved that there was no *P. alpina* in the collection.

In Ellesmereland *P. cenisia* is not often proliferous as it seems; I have only a few specimens which I think ought to be referred here. Such forms doubtless are comprised in *P. stricta,* LINDEBERG, Resa i Norge; GELERT, l. c., p. 122 refers this as well as *P. colpodea,* TH. FRIES, Till. Spetsb. Fan. Fl., p. 138, to *P. pratensis,* as "viviparous" forms of it. I do not indeed doubt that forms of *P. pratensis* are comprised under that name; as I have examined the collection of "*P. stricta*" in the herbarium of the Botanical Museum of Lund, revised by LINDEBERG himself, I think, I can assert that there are also forms of *P. cenisia* and *P. laxa,* probably also of *P. glauca* included. Some bear a rather considerable resemblance to the form wich I have above referred to the latter species as its proliferous state. It is, however, hardly possible to form a precise opinion about the affinity of such forms, as the different parts of the spikelet becomes so entirely altered when it gets proliferous.

Occurrence. North coast (HART). Grinnell Land, common as far as may be judged by the statements of HART. Hayes Sound region, common; specimens from: Skräling Island (1379), Cape Viele (864), Eskimopolis (837), Cape Rutherford (303, 449), Fram Harbour (289, 1108), Bedford Pim Island (279, 439, 1124, 1257). In the STEIN collection from Weyprecht Islands (HOLM). South coast, common; specimens from: Fram Fjord (1603), Harbour Fjord (2157, 2172, 2242, 2541, 2589, 2653, 4000, 4003), Goose Fjord (3432, 3490, 3497, 3641). West coast: Reindeer Cove; Braskerud Plain (701, leg. ISACHSEN). The proliferous form from Seagull Rock in the Harbour Fjord (2579) and Falcon Cliff in the Goose Fjord (2881).

Distribution: all over the Arctic Regions and also in Labrador, Rocky Mountains, islands of the Bering Sea, Kamshatka, Altai, Himalayas, Scandinavian and Central European mountains, Iceland.

Poa pratensis, L.

P. pratensis, LINNAEUS, Sp. plant., 1753; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill Fl.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; NATHORST, Nya bidr.

Fig. Sv. Bot., T. 88; Fl. Dan., T. 1444; Tab. nostra 8, fig. 1 (f. *prolifera*).

The few specimens of this species which I have brought home, seem best referable to var. *alpigena*, N. M. BLYTT, Norg. Fl. They are found in places of old Eskimo habitation, which accords well with what LANGE, l. c., p. 177, mentions about its appearance in Greenland.

At the Jones Sound coast I only found proliferous forms that I could refer to this, that is to say I am not absolutely certain about their place (cf. *P. cenisia*). Especially is it doubtful whether the proliferous *Poa* from the Falcon Cliff (4008) which was found in company with *P. cenisia* ought not rather to be referred to the latter. But the little that could be seen of the structure of the pales, pointed rather to *P. pratensis*, as the pale was tolerably distinctly veined, with long-haired veins. The proliferous form was found elsewhere in open gravelly or somewhat clayey soil.

Occurrence. Hayes Sound: Skräling Island (1361), Cape Viele (4248). Proliferous forms from the South coast: Fram Fjord at the mouth of the river of the Western valley (1635); Goose Fjord, Falcon Cliff (4008), gravel-ridge east of 3rd quarters (3480).

Distribution: East and West Greenland, Arctic American Archipelago (specimens only seen from Beechey Island in North Devon), Western Arctic and Temperate North America (partly introduced according to BRITTON & BROWN, l. c.), in Asia from the New Siberian Islands and the arctic coast far southwards, all over Europe, Novaja Semlja, Spitsbergen, Franz Joseph Land, Faeroes, Iceland, Southern South America.

Pleuropogon Sabinei, R. BR.

P. Sabinei, R. BROWN, Chlor. Melv., 1823; GELERT, in OSTENFELD, Fl. Arct.; NATHORST, N. W. Grönl.; LANGE, Consp. Fl. Groenl., 2; KRUUSE, List E. Greenl.; SIMMONS, Prel. Rep. et Bot. Arb.; TAYLOR, Fl. pl. Baffin B.; HOOKER, Account Walker; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; KJELLMAN, in Vegaexp.; FEILDEN, Fl. pl. Nov. Zeml.

Fig. R. BROWN, l. c., T. D; NORDENSKIÖLD, Vegas färd, 1, p. 318; OSTENFELD, l. c., fig. 90; Tab. nostra 10.

As I thought it very probable, that this interesting plant, which was previously found both by NATHORST in north-western Greenland

and by others in several places in the Arctic Archipelago, might occur also in Ellesmereland, I kept a constant lookout for it in all ponds and lakelets, that were visited in my excursions. In the Hayes Sound district, however, my search was in vain, but in Fram Fjord it was found, and later on in several places in the south-western corner of the land.

It appeared in two forms, one growing in the water of pools and lakelets and having long floating leaves like those of *Glyceria fluitans* and another which grew in furrows of the soil or other places, where it had doubtless been flooded early in the summer but stood perfectly dry when flowering. This f. *terrestris* had a culm only 4—6 inches high, and leaves which were only a couple of inches. The panicle also had fewer and smaller spikelets. It could, however, be hardly anything but a form due to less favorable conditions of growth. The figures of the plant that exist in the literature apply most nearly to this form, whereas the f. *aquatica* with the longer culm, of which only the uppermost part and the panicle rise above the surface of the water, on which the long basal leaves float, has never been figured.

Occurrence. South coast: Fram Fjord, both forms rather commonly spread, the f. *aquatica* both in lakes and pools in the Western valley (1600) and in the valley at the bottom of the fjord; the f. *terrestris* also in several places along the west side (1666); Goose Fjord: east of 3rd winter quarters (3434, f. *terrestris*); in lakelets on the low land between the Goose Fjord and the bottom of the Walrus Fjord; here also f. *terrestris;* Walrus Fjord, f. *aquatica* abundant in the great valley on the west side.

Distribution: Northern East and West Greenland (in a few localities only), Arctic American Archipelago (several localities besides the original one in Melville Island), Arctic America (a specimen from Ross's voyage, 1829—33, probably from Boothia Felix, in the Nat. Hist. Mus.), Arctic Siberia, Altai, Novaja Semlja, Franz Joseph Land.

Catabrosa algida, (Soland.) Fr.

Agrostis algida, Solander, in Phipps, Voy. N. Pole, 1774; Wahlenberg, Fl. Lapp.; *Catabrosa algida,* Fries, Mantissa 3, 1842; Lange, Consp. Fl. Groenl.; Nathorst, N. W. Grönl.; Simmons, Prel. Rep. et Bot. Arb.; Kjellman, in Vegaexp.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; *Phippsia algida,* R. Brown, Chlor. Melv.; Gelert, in Ostenfeld, Fl. Arct.; Kruuse, List E. Greenl.; Hart, Bot. Br. Pol. Exp.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Macoun, Pl. Pribilof; Feilden, Fl. pl. Nov. Zeml.; Kruuse, Jan May.; *Ph. monandra,* Hooker, l. c.

Fig. Fl. Dan., T. 1505; Sv. Bot., T. 545; Wahlenberg, l. c., T. 1.

As this plant, especially through *C. concinna*, Th. Fr., stands in near affinity to the species of the genus *Catabrosa*, there is hardly any cause for taking up the genus *Phippsia* again. *C. algida*, as Andersson & Hesselman, l. c., also observe, is one of the first grasses to flower — I found it flowering in June — but it may be found still flowering at the end of the summer, as different individuals attain to flowering at very different times. Ripe fruit was seen already in July. It is rather variable as to size, ramosity of the panicle, etc., and was found both in wet places among moss, around pools, and in inundated clay fields, and also in rookeries and other manured places where it becomes especially large and thriving. Hart, l. c., p. 40, also speaks of it as "growing in mud by the sea edge on ground which is flooded by spring-tides", but I have never seen it so near the shore line.

Occurrence. Grinnell Land: Discovery Bay, Radmore Harbour, Norman Lockyer Island (Hart). Hayes Sound region rather common: Beitstad Fjord, Cape Rutherford (307), Fram Harbour (290, 453, 1415), Cocked Hat Island (1264), Bedford Pim Island (274, 1196, 1258). South coast: Harbour Fjord, Big Valley, Lake Valley, Spade Point (1798, 2526), Barren Vallies (2389), Western Sound; Muskox Fjord; Goose Fjord, very common (3335). West coast: along the Hell Gate to Lands End,

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Alaska, Pribilof Islands, Arctic Siberia and Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Northern Scandinavia, Iceland, Jan Mayen.

Trisetum spicatum, (L.) Richt.

Aira spicata, Linnaeus, Sp. plant., Ed. 1, 1753, n. 7, p. 64, non n. 1, p. 63; Sp. plant., Ed. 2; *A. subspicata*, Linnaeus, Syst. Nat., Ed. 10; Trautvetter, Consp. Fl. Nov. Seml.; *Trisetum subspicatum*, Palisot de Beauvois, Nouv. Agrostogr., 1812; Gelert, in Ostenfeld, Fl. Arct.; Lange, Consp. Fl. Groenl.; Kruuse, List E. Greenl.; Nathorst, N. W. Grönl.; Hart, Bot. Br. Pol. Exp.; Simmons, Prel. Rep. et Bot. Arb.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Macoun, Pl. Pribilof; Kjellman, in Vegaexp.; Feilden, Fl. pl. Nov. Zeml.; Andersson & Hesselman, Spetsb. kärlv.; Hartman, Skand. Fl.; *Avena subspicata*, Clairville, Man. Suisse; Ledebour, Fl. Ross.; *A. airoides*, Koeler, Descr. gram.; *Trisetum airoides*, Roemer & Schultes, Syst. Veg.; Neuman & Ahlfvengren, Sv. Fl.; *T. subspicatum* var. *molle*, Gray, Bot. N. Un. St.; Greely, Rep.; *T. spicatum*, Richter, Pl. Europ.

Fig. Sv. Bot., T. 722; Fl. Dan., T. 228.

The confusion concerning the correct name of this plant, is due principally to an error in Linnaeus, Sp. plant., Ed. 1. Here, under the genus *Aira*, as n. 1 is described (p. 63) a species, *A. spicata*, the

home of which is recorded as "India", but on the next page as n. 7 an *A. spicata* again appears, which is said to be found in "Lapponia". In the "Errata" however the name of the first "*A. spicata*" is corrected to "*indicum*", whereas the second "*A. spicata*" is upheld. But in the next work where he treats these species, Syst. Nat., Ed. 10, Vol. 2, p. 873 (1759), both names are altered, the first plant now is called *A. indica* and the second *A. subspicata* (it is evident, that no other plant can be meant as the short description from the Sp. plant. is here reprinted: "A. fol. planis, panic. spicata, flosc. medio aristatis; arista reflexa laxiore"). Probably LINNAEUS has at the time forgotten his own correction or he has then been of the opinion that a name used for two quite different plants (at the same time) must be entirely omitted. But when, 1763, he published the second editon of Sp. plant., he took another view of the matter, as there the two plants are called *A. indica* and *A. spicata* in correspondence with the correction to the first edition. As LINNAEUS has himself corrected the error in the Sp. plant., Ed. 1, his first species name "*spicata*" must be upheld for our plant and not the second "*subspicata*", which he has himself again abandoned. To revive the name *Avena airoides* of KOELER (1802) is quite out of the question, as both names of LINNAEUS are prior to it. To the genus *Trisetum* the species was referred by PALISOT DE BEAUVOIS, but as he used the species name "*subspicatum*", RICHTER is to be quoted in stead of him for the referring of the plant to that genus.

In Ellesmereland the species is found pricipally in slopes and rock ledges, especially in rookeries and other places with a richer soil. In the Hayes Sound district I have not found it.

Occurrence. Grinnell Land: on Mount Cartmel and Bellot Island in Lady Franklin Bay (HART), also in GREELY's list. South coast: especially in the archaean territory; Fram Fjord in several places (1609, 1665); Harbour Fjord at Seagull Rock (2586), Lake Valley, "green patch" at the anchorage (2154, 4001), Barren Vallies, Western Sound; South Cape; Muskox Fjord; Goose Fjord, rather rare, east of 3rd quarters (3479), Gull Cove (in the rookery).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Canada, in the higher mountains down to North Carolina, New Mexico and California, Alaska, Pribilof Islands, Arctic Siberia, Kamshatka, Altai, Caucasus, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, mountains of Central Europe, Iceland, Columbia, Peru, Southern South America, Tierra del Fuego, Campbell Islands, Tasmania.

Aira caespitosa, L.
var. arctica, (TRIN.) m.

A. arctica, TRINIUS, Gram. gen. et spec., 1831; ROTHROCK, Fl. Alaska; *Deschampsia brevifolia*, R. BROWN, Chlor. Melv., 1823; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; SEEMANN, Fl. W. Esk. land.; LEDEBOUR, Fl. Ross.; *Aira brevifolia*, LANGE, Consp. Fl. Groenl.; HARTZ, Fan. og Karkr.; SIMMONS, Bot. Arb.; *A. caespitosa* var. *brevifolia*, GELERT, in OSTENFELD, Fl. Arct.; KJELLMAN, in Vegaexp.; TRAUTVETTER, Consp. Fl. Nov. Seml.; *A. caespitosa* var. *borealis*, TRAUTVETTER, l. c.; ANDERSSON & HESSELMAN, Spetsb. kärlv. (?); *Aira caespitosa* var., TRINIUS, Spec. gram.; *A. caesp.* f. *alpina*, KRUUSE, List E. Greenl. (ex p.?); *Deschampsia caespitosa*, HART, Bot. Br. Pol. Exp.; non *Aira brevifolia*, PURSH, Fl. Amer. sept.; nec *A. caespitosa* * *brevifolia*, M. v. BIEBERSTEIN, Fl. Taur. Cauc.; nec *A. caesp.* var. *brevifolia*, HARTMAN, Skand. Fl., Ed. 2; nec NATHORST, N. W. Grönl.

Fig. TRINIUS, Spec. Gram., 3, T. 256; Tab. nostra 9, fig. 7.

At the first glance, the plant which ROB. BROWN, l. c., p. 33—34, described as *Deschampsia brevifolia* seems so very unlike *Aira caespitosa*, that one does not even think that they belong to the same genus. But on closer examination it appears, that only relative characters separate them: the arctic plant is small and short, coarsely built, with short, often somewhat involute leaves and coarse more or less inflated sheaths. The culm leaves, especially the uppermost one, are very short, sometimes reduced nearly to the sheath alone. The panicle is generally densely contracted, almost spike-like. BROWN, who had only seen a few specimens collected in Melville Island, could hardly realize that a plant of so different a habit could belong to *A. caespitosa*, and still it would be tempting enough to uphold it as a species, did not intermediate forms connect it with the type of the species in America as well as in Asia. HOOKER, l. c., records a *β major*, which "seems almost to unite *D. brevifolia* and *D. caespitosa*", and TRINIUS, who doubtless had had a larger material of intermediate forms at his disposal, does not hesitate to reduce the species of R. BROWN to a form of the latter (Spec. gram., 3, T. 256). The same is done by later authors, who have studied those connecting forms (cf. works of TRAUTVETTER, KJELLMAN, and others quoted above).

Authentic specimens of the grass, which TRINIUS, Gram. gen. et spec., p. 56, calls *A. arctica*, I have not seen, but on the authority of TRINIUS himself (figure quoted above) and LEDEBOUR, l. c., 4, p. 422, I must assume it to be the same form as BROWN described. Then the name of TRINIUS must be used, as that of BROWN must be cancelled on several accounts, viz., PURSH had already, 1814 (l. c.), described an *Aira brevifolia* from "the plains of Missouri" with the addition "this

grass is the most common in these plains." What he understood by this name I have not been able to find out, as I have seen no specimens and as I have not found it mentioned by later authors, not even as a synonym. The Index Kewensis has it as an upheld species, not as a synonym. Moreover there exists yet another older *Aira* with the same name, that of MARSCHALL v. BIEBERSTEIN, quoted above, and that in fact is a variety of *A. caespitosa.* HARTMAN, l. c., p. 25, has also reduced it to a variety when he, quite rightly as I think, identified a plant from Jämtland with the sub-species described by BIEBERSTEIN. This name, consequently as the oldest, must be used for the plant which is found in several places in northern countries (Faeroes, Iceland, Greenland) as well as in higher mountains (Caucasus, Jämtland), and which is distinguished by its short and coarse leaves, but has an open, long-branched panicle. This is widely different from the high-arctic form, which must bear the name given by TRINIUS.

To the latter, and not to the true var. *brevifolia,* where GELERT, l. c., p. 113, has it, the synonym var. *borealis,* TRAUTV. must be referred, as this author, l. c., p. 86, quotes TRINIUS, Spec. Gram., T. 256 B, representing a specimen of var. *arctica* from Unalaschka, which entirely agrees with the arctic ones.

The var. *brevifolia* of NATHORST, from Ivsugigsok in north-western Greenland will be mentioned under the next species; his plant under the same name from Hare Island in Danish Greenland is a small form of var. *brevifolia,* M. v. BIEBERST. But a plant which I think ought to be referred to var. *arctica* is also found in Greenland, by HARTZ at Hold with Hope (l. c., p 348) and probably already by the German expedition in 1870. The Grinnell Land plant of HART is quite the same as mine from the south coast, and consequently I assume that of GREELY also to be the same.

KJELLMAN, Sib. Nordk. Fan. Fl., p. 274, mentions *A. caespitosa* as one of the typical plants of the "rutmark" (polygon-fields); in Ellesmere-land also it was generally found in clay fields. Sometimes it formed large tufts in wet soil or in shallow water, it was rarely found in a denser vegetation. It flowered late, hardly before the beginning of August.

Occurrence. Grinnell Land: Discovery Harbour (HART, GREELY). South coast: Fram Fjord, in the Western valley, along the river (1636); Muskox Fjord, inner part (2141); Goose Fjord, rather common in the clay fields; specimens from Goose Valley (3271), Ptarmigan Gorge (3389), east of 3rd quarters (3438, 3485), Midday Knoll (4245), Yellow

Hill (3577), Falcon Cliff (3789). West coast: Lands End, between Eidsfjord and Baumann Fjord, Coal Bay.

Distribution: Northern East Greenland (cf. above), Arctic American Archipelago, Arctic America, Sitcha, Unalaschka, Pribilof Islands, Arctic Siberia, Novaja Semlja, Spitsbergen (?). The main species is spread far to the south, and even in Southern South America, Tasmania, and New Zealand.

Aira flexuosa, L.

A. flexuosa, LINNAEUS, Sp. plant., 1753; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; SIMMONS, Bot. Arb.; HOOKER, Fl. Bor. Amer.; FEILDEN & GELDART, Fl. Kolguev; *A. caespitosa* var. *brevifolia*, NATHORST, N. W. Grönl., ex p.; *Deschampsia flexuosa*, BRITTON & BROWN, Ill. Fl.; LEDEBOUR, Fl. Ross.

Fig. Fl. Dan., T. 157, 1322.

The form in which *A. flexuosa* appears in its only known locality in Ellesmereland is rather peculiar and different from its southern forms. In its matlike growth, with the numerous rather long leaves, it is reminiscent to a certain degree of *A. setacea*, HUDS., but the leaves are flat and the resemblance is quite limited to the mode of growth. It shows more resemblance to *A. flexuosa* var. *montana* f. *pallida*, BERLIN, Kärlv. sv. exp. Grönl., p. 77, described from Ivigtut in southern Greenland. Equally with this it has a straight awn which is included within the glumes on account of its shortness. This, however, may be due to the young state in which the specimens had to be collected as we were to leave the place where it grew. During the whole summer I had given my attention to the large mats of the beautifully green grass, which was, however, sterile and could not be determined. When I was obliged to take specimens of it, August 4, 1899, it had just begun to show its panicles.

The dense mats, growing among moss at the edge of a pond, consisted of numerous sterile shoots with long, narrow, soft and lax leaves. The culms at the time mentioned, were quite short, even the most developed had not yet brought the base of the panicles above the top of the leaves. The panicle-branches were almost glabrous, 2—3 from each node; the spikelets about a quarter of an inch long, the glumes reaching about two-thirds of the length of the spikelet. Generally one flower only was developed in the spikelet; both pales had awns reaching to their top or thereabout. The awn was straight and not twisted, but probably it might have become more like the typical

one of *A. flexuosa,* if the specimens had been allowed to develop further.

This form perhaps deserved a name, but as my materiel is so small and little-satisfying, I will not establish any new variety on it.

By this find, the area of *A. flexuosa* becomes extended nearly 10° to the north of the highest northern places, whence it is previously recorded (Kolguev Island, and Godhavn (69° 14′) in Danish Greenland). However it grows also in a locality between the latter and the Ellesmereland one; NATHORST's *Aira* from Ivsugigsok near Cape York (76° 8′) has proved to be the same as mine from Fram Harbour. Probably it is a pioneer of the species which has reached so far north where the plant can hardly develop fruit. The year 1899 was rather favorable, but still the plant had only just begun to show its panicles in the beginning of August, and, as there were no old ones from preceding years to be seen in the mats of leaves, I presume that the flowering is rare, and that ripe fruit is very seldom developed. If that is so, it must have little chance of spreading, notwithstanding the abundant development of the vegetative system. The dense mats which it forms, are such as not to be easily overlooked, but still I may have done so, for instance during the excursions early in the summer, to the interior of Hayes Sound.

Occurrence. East coast: at the largest pond on the North side of Fram Harbour (1412).

Distribution: Southern East Greenland, West Greenland, Labrador, Canada, New Foundland and down to North Carolina and Tennessee, North-western America, Siberia (not in the arctic parts), Himalayas, Caucasus, all over Europe, Faeroes, Iceland, Southern South America, Falkland Islands.

Arctagrostis latifolia, (R. BR.) GRISEB.

Colpodium latifolium, R. BROWN, Chlor. Melv., 1823; LANGE, Consp. Fl. Groenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *Arctagrostis latifolia,* GRISEBACH, in LEDEBOUR, Fl. Ross.; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; GREELY, Rep.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof.

Fig. Fl. Dan., T. 2341; OSTENFELD, l. c., fig. 82.

The Ellesmereland specimens generally are not very large, but in especially favorable years such as 1902, they may reach a height of 15 inches or more, and the panicles become more open. Then the

plant probably represents the var. *arundinacea*, such as it is described by GRISEBACH, l. c., p. 435 (*Vilfa arundinacea*, TRINIUS, Gram. unifl.). Besides, I have also found another quite opposite form which is much slenderer in all parts than the main form; however it grows among the latter. The leaves are only half as broad as in the type, the panicle is smaller, narrower, and less dense. Probably it is such a form which HOOKER, l. c., p. 238, has described as *Colp. pauciflorum*.

This grass grew in more or less wet places, in swamps, along brooks, and in clay fields, rarely abundant. Generally the panicle first protruded late in the summer, only in 1902 I saw it in flower about the beginning of August.

Occurrence. Grinnell Land: Discovery Harbour, Shift Rudder Bay (HART, GREELY). Hayes Sound region: Twin Glacier Valley (870), Cape Viele (863), Eskimopolis (835), Lastraea Valley (853); Cape Rutherford in the plateau and the slopes (1154) as also in the vallies. South coast: Fram Fjord in several places (1624); Harbour Fjord, Big Valley (2335), Lake Valley, Spade Point, Barren Vallies (2387), Western sound, Sir Inglis Peak; Muskox Fjord, abundant in clay fields around the Goose and Walrus Fjords, where it was also spread in the higher tracts and especially flourishing there in 1902; specimens from the lowland east of 3rd quarters (3435). West coast; Coal Bay in Baumann Fjord. Here also the narrow-leaved variety was found (3856), which had previously been seen on the south coast in the Big Valley in Harbour Fjord (4249).

Distribution: Northern East and West Greenland, Arctic American Archipelago, Arctic America, Hudson Bay region, Alaska, Pribilof Islands, St. Lawrence Island, Siberia down to Baical and Altai, Arctic Russia, Novaja Semlja, Spitsbergen, Finmark.

Alopecurus alpinus, SM.

A. alpinus, SMITH, Engl. Bot., 1802; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; SIMMONS, Prel. Rep. et Bot. Arb.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *A. ovatus*, HORNEMANN, Fl. Dan., Fasc. 27.

Fig. Engl. Bot., T. 1126; Fl. Dan., T. 1565.

The species is the most common grass of Ellesmereland and, in fact, is one of the commonest of all plants in the entire country, where

it is to be found in very different localities. Indeed, it seems to thrive best in swamps, where it is never lacking, and in manured soil such as in old places of habitation and in rookeries, where it may be very flourishing, but it grows also in slopes, rock ledges, clay plains, gravel soil, and even in loose sand. In dry places it becomes small, narrow-leaved, and the spike-like panicle becomes short and almost orbicular. One form, which grew in slopes down to the river of the Western valley in Fram Fjord (1623), was especially peculiar. It flowered sparingly, but instead, it formed quite a sward of creeping shoots with short, narrow leaves. In other localities in the same fjord *Alopecurus* would reach to a height of at least fifteen inches, but nowhere in Ellesmere-land have I seen it so flourishing as in the rookeries of the little auk at Foulke Fjord. GREELY speaks of specimens 12 and 18 inches high as of frequent occurrence along the shores of Lake Hazen (l. c., p. 15). When *A. alpinus*, as is commonly the case, grows in water, it will often develop long floating leaves like those of *Pleuropogon* or *Glyceria fluitans*.

In flower about the end of June or beginning of July; (GREELY has noted it as being in bloom already June 18, 1883).

Occurrence. North coast: Ward Hunt Island (?), Cape Joseph Henry, Floeberg Beach (HART). Grinnell Land: spread in all localities visited, along the coast and in the interior (HART, GREELY). Hayes Sound region, common; specimens from: Skräling Island (1375), Cape Rutherford (306), Fram Harbour (292), Cocked Hat Island (1265), Bedford Pim Island (272). Southern East coast: Cape Faraday (WETHERILL). South coast: common, specimens from Fram Fjord (1623). West coast: Simmons Peninsula up to Lands End, between Eidsfjord and Baumann Fjord, Coal Bay, Braskerud Plain (699, leg. ISACHSEN), probably everywhere.

Distribution: East and West Greenland (rare in the south), Arctic American Archipelago, Arctic America, Labrador, Rocky Mountains, Alaska, Pribilof Islands, St. Lawrence Island, Arctic Siberia, Altai, Ural, Arctic Russia, Novaja Semlja, Spitsbergen, Franz Joseph Land, Scotland.

Hierochloa alpina, (LILJEBL.) ROEM. & SCHULT.

Aira alpina, LILJEBLAD, Svensk Fl., 1798; *H. alpina,* ROEMER & SCHULTES, Syst. Veg., 2, 1817; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; NATHORST, N. W. Grönl.; HART, Bot. Br. Pol. Exp.; WETHERILL, List 1894; HOOKER, Fl. Bor. Amer.; KJELLMAN, in Vegaexp.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *Savastana alpina,* BRITTON & BROWN, Ill. Fl.; ROWLEE & WIEGAND, List Cornell 1896; *Holcus alpinus,* SWARTZ, in WILLDENOW, Sp. plant.; WAHLENBERG, Fl. Lapp.

Fig. WAHLENBERG, l. c., T. 2; Sv. Bot., T. 438; Fl. Dan., T. 1508.

This is a rare plant in Ellesmereland where I found it only once, in loose gravel in front of a glacier, flowering July 6, 1899. It formed large compact tufts.

Occurrence. Hayes Sound: Twin Glacier Valley (869), "Deserted Village" (HART). South coast: neighbourhood of Fram Fjord (WETHERILL).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, Mountains of New England, Alaska, Unalaschka, St. Lawrence Island, Arctic and Eastern Siberia, Altai, Caucasus, Northern Russia, Novaja Semlja, Spitsbergen, Northern Scandinavia, Iceland, Australia, New Zealand.

Lycopodiaceae.

Lycopodium Selago, L.

L. Selago, LINNAEUS, Sp. plant., 1753; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. Sv. Bot., T. 119; Fl. Dan., T. 104.

The Ellesmereland specimens are rather small and have the leaves more or less pressed to the stem, viz., they may be referred to the var. *appressa,* DESV., which does, however, go over without any definable limit into the larger common form.

It is rather a rare plant, found in wet places with an open vegetation.

Occurrence. Grinnell Land: Discovery Harbour (GREELY has omitted it in his list, but in a table of "mounted specimens" (l. c., 1, p. 303) it is to be found). Hayes Sound region: (mentioned by HART without locality), Twin Glacier Valley (880), Cape Viele (865), Lastraea Valley (856), Rutherford Vallies (1239), Bedford Pim Island (442). South

coast: only in the archaean territory and very rare there: Fram Fjord, at a lake in the Western Valley (1648); Harbour Fjord, in the Big Valley (2344, leg. SCHEI), not seen in the lime- and sandstone region.

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, higher mountains down to North Carolina, Rocky Mountains, Alaska, Pribilof Islands, Northern and Central Asia and Europe, Novaja Semlja, Spitsbergen, Faeroes, Iceland, Azores, South America, Australia.

Equisetaceae.

Equisetum arvense, L.

E. arvense, LINNAEUS, Sp. plant., 1753; MILDE, Mon. Equis.; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; KURTZ, Fl. Tschuktsch.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; *E. arvense* f. *arctica,* KRUUSE, Jan May.

It is difficult enough to refer my specimens to any of the many forms of the species, that have been named by different authors, but that commingle without any distinction. Generally such small forms with prostrate, assurgent, sterile stems and with fertile stems that bear sterile branches at the base, are referred to var. *alpestre,* WAHLENBERG (Fl. Lapp., p. 296). The description there "caulibus sterilibus decumbentibus", however, applies to other forms besides that here in question, and the specimens that are distributed in the Herb. Norm., fasc. 8, n. 99, under this name are much coarser than mine. It agrees considerably better with *E. riparium,* FRIES, Mantissa 3, p. 167—68, and with the specimens distributed in the Herb. Norm., fasc. 7, n. 99. Perhaps also its correspondence with var. *arcticum,* RUPR. is equally good. The figures of MILDE, l. c., T. 1, figg. 11, 12, 13, seem to imply, that the latter form is somewhat coarser and more branched, whereas figg. 9 a, 9 b, 10, representing var. *riparium,* (FR.) MILDE, resemble my specimens more nearly. I think, therefore, that the latter name will best apply to them. I have seen the same form, in the Copenhagen herbarium, from East Greenland, Novaja Semlja and Spitsbergen, generally under the name *E. arvense* var. *alpestre,* WAHLENB., some also, when they were somewhat larger, were called var. *boreale,* (BONG.) MILDE.

Principally sterile stems appeared; at the Rutherford locality also, however, a good number of fertile ones, that had generally begun to

wither at the time of the collection (July 26, 1899). Probably both kinds of stems appear about the same time, the fertile ones perhaps a little earlier. It grew among moss in svamps or inundated places.

Occurrence. Grinnell Land: Bellot Island, Discovery Harbour (HART, GREELY). Hayes Sound region: (recorded by HART), Rutherford Vallies (1160). South coast: Harbour Fjord in the Big Valley (2340), interior of the Muskox Fjord (2118, 2138).

Distribution (all forms together): East and West Greenland, Arctic American Archipelago, Arctic America, Rocky Mountains, and down to Virginia and California, Alaska, Unalaschka, Pribilof Islands, Northern and Central Asia, all over Europe, Novaja Semlja, Spitsbergen, Jan Mayen, Faeroes, Iceland, North Africa, Cape Colony.

Equisetum variegatum, SCHLEICH.

E. variegatum, SCHLEICHER, Cat. pl. Helv., 1807; WILLDENOW, Sp. plant.; MILDE, Mon. Equis.; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; MACOUN, Pl. Pribilof; LEDEBOUR, Fl. Ross.; *E. tenellum*, ANDERSSON & HESSELMAN, Spetsb. kärlv.

Fig. Fl. Dan., T. 2490.

I am a little doubtful about this plant, as I have seen no Ellesmereland specimens of it. However I may have forgotten, during my stay in London, to look for HART's specimens, and as a confusion with the preceding one is hardly to be thought of, I enter it here on the authority of HART and GREELY. Its occurrence in Greenland (for instance in the north-eastern coast) and in the Parry Islands, also tells in favour of the possibility of its existence in Grinnell Land.

As to the name, there is a difficulty about that also; a name exists from 1798, *E. hiemale A, tenellum,* LILJEBLAD, Svensk Fl., p. 384, which KROK in HARTMAN, Skand. Fl., Ed. 12, has adopted for the species. But this name may equally well apply to *E. scirpoides,* MICHAUX, 1803. Indeed, when *E. variegatum,* and the last-mentioned are considered as belonging to one species, there might be the question of adopting the name of LILJEBLAD for it, but I think that it is better to use the other names, the meaning of which is not subjected to any doubt.

GREELY, l. c., mentions clay and loamy soil as the habitat, and adds "infertile".

Occurrence. Grinnell Land: Discovery Harbour, Mount Cartmel (HART, GREELY).

Distribution: Northern East Greenland, West Greenland, Arctic American Archipelago, Arctic America, down to New York, New Hampshire, Nebraska, Nevada, Pribilof Islands, Land of the Chukches, East Siberia, Altai, Northern and Central Europe, Novaja Semlja, Spitsbergen, Iceland.

Polypodiaceae.

Aspidium fragrans, (L.) Sw.

Polypodium fragrans, LINNAEUS, Sp. plant., 1753; *A. fragrans*, SWARTZ, Syn. Fil., 1806; MILDE, Fil. Europ.; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.; HOOKER, Fl. Bor. Amer.; KURTZ, Fl. Chilcat. et Fl. Tschuktsch.; *Lastraea fragrans*, PRESL, Pteridogr.; LANGE, Consp. Fl. Groenl.; SIMMONS, Prel. Rep. et Bot. Arb.; AMBRONN, Kingua Fjord; *Polystichum fragrans*, LEDEBOUR, Fl. Ross.; *Dryopteris fragrans*, SCHOTT, Gen. Fil.; BRITTON & BROWN, Ill. Fl.

Fig. Fl. Dan., T. 2187.

Naturally, this fern is rather small and has short leaves here in the most northernly place where it is found. It grew, however, in great quantities in rock-clefts together with mosses and other plants, and as the weather was fine and sunny when I collected it, the air was strongly perfumed with its agreeable scent of violets.

Occurrence. Hayes Sound, outer part, in the Lastraea Valley. Mr. BAY first found it here in a single individual (475) in the autumn of 1898; afterwards I found it there in plenty during the next summer (842).

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, Labrador and down to the Northern United States, Alaska, Unalaschka, Land of the Chukches, Arctic and Eastern Siberia, Kamshatka, mountains of Central Asia, Caucasus.

Cystopteris fragilis, (L.) BERNH.

Polypodium fragile, LINNAEUS, Sp. plant., 1753; *C. fragilis*, BERNHARDI, Vers. Anordn. Farrnkr., 1806; MILDE, Fil. Europ.; LUERSSEN, Farnpfl.; GELERT, in OSTENFELD, Fl. Arct.; LANGE, Consp. Fl. Groenl.; KRUUSE, List E. Greenl.; HART, Bot. Br. Pol. Exp.; GREELY, Rep.; HOOKER, Fl. Bor. Amer.; BRITTON & BROWN, Ill. Fl.; ROTHROCK, Fl. Alaska; MACOUN, Pl. Pribilof; KURTZ, Fl. Tschuktsch.; LEDEBOUR, Fl. Ross.; FEILDEN, Fl. pl. Nov. Zeml.; ANDERSSON & HESSELMAN, Spetsb. kärlv.; KRUUSE, Jan May.

Fig. Fl. Dan., T. 401; LUERSSEN, l. c., fig. 155—159.

It might perhaps be possible to distinguish in my material some of the many forms of this species, which MILDE and LUERSSEN adopt in

their above-quoted works. They seem, however, to be so little constant and so connected by intermediate forms, that it is of rather little interest to distinguish them. It grew principally in clefts of rock and was not rare in the archaean districts.

Occurrence. Grinnell Land: Cape Murchison, Discovery Harbour, Bellot Island (HART, GREELY). Hayes Sound region: mouth of Flagler Fjord, Lastraea Valley (839), north side of Fram Harbour (1100), also recorded by HART for Hayes Sound and Cape Sabine (Bedford Pim Island), and by TH. HOLM from the Weyprecht Islands (leg. STEIN). South coast: Fram Fjord (1613); Harbour Fjord, Big Valley, Seagull Rock (2591), Spade Point, Lake Valley, "green patch" (2553), Western sound (2442), Sir Inglis Peak; on limestone it was found only at Falcon Cliff (2878) in the Goose Fjord, where it grew abundantly.

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America, and in the mountains down to South America, Unalaschka, Pribilof Islands, Kurile islands, in Asia down to the Himalayas, Caucasus and Asia Minor, Cyprus, all over Europe, Novaja Semlja, Spitsbergen, Jan Mayen, Iceland, Faeroes, Algiers, Cape Verde Islands, Sandwich Islands, Van Diemens Land, New Zealand, Kerguelen islands.

Woodsia ilvensis, (L.) R. BR.

var. *alpina,* (BOLT.), ASCHERS. & GRAEBN.

Acrostichum alpinum, BOLTON, Fil. brit., 1785; *A. hyperboreum,* LILJEBLAD, Acrostich.; *Woodsia hyperborea,* R. BROWN, Woodsia; LANGE, Consp. Fl. Groenl.; HART, Bot. Br. Pol. Exp.; HOOKER, Fl. Bor.Amer.; LEDEBOUR, Fl. Ross.; *W. hyp. A arvonica,* MILDE, Fil. Europ.; LUERSSEN, Farnpfl.; *W. alpina,* S. F. GRAY, Nat. Arr. Br. pl.; BRITTON & BROWN, Ill. Fl.; *W. ilvensis β alpina,* ASCHERSON & GRAEBNER, Syn. Mitteleur. Fl.; GELERT, in OSTENFELD, Fl. Arct.; KRUUSE, List E. Greenl.

Fig. Fl. Dan., T. 292.

I do not think that this plant can be held apart from *W. ilvensis* as a separate species, and even to *W. glabella* its likeness is so great, that I overlooked it in collecting the latter, and found it first among the collected specimens when examining them after our return.

It grew in rock-clefts together with *Cystopteris.*

Occurrence. Hayes Sound: first mentioned by HART from "Edwards Grief"; collected by myself at Cape Viele (4264). It may have been overlooked in other places in the same region, but hardly on the south coast.

Distribution (var. *alpina*): East and West Greenland, Arctic American Archipelago, Arctic America, Labrador, down to New York,

Maine, Ontario, Alaska, East Siberia, mountains of Central Asia, Ural, Northern Russia, Scandinavian mountains, Central European mountains, Great Britain, Iceland. The main form has about the same distribution, only a little wider.

Woodsia glabella, R. Br.

W. glabella, R. Brown. in Richardson, App. Franklin I, 1823; Lange, Consp. Fl. Groenl.; Hart, Bot. Br. Pol. Exp.; Hooker, Fl. Bor. Amer.; Britton & Brown, Ill. Fl.; Kurtz, Fl. Tschuktsch.; Ledebour, Fl. Ross.; Andersson & Hesselman, Spetsb. kärlv.; Luerssen, Farnpfl.; *W. hyperborea* var. *glabella,* Trautvetter, Syll. Sib. bor. or.; *W. ilvensis* var. *glabella,* Gelert, in Ostenfeld, Fl. Arct.; Kruuse, List E. Greenl.

Fig. Hooker, l. c., 2, T. 237; Fl. Dan., T. 2921.

In my opinion, this plant differs sufficiently from both forms of *W. ilvensis* to obtain the rank of separate species, and not to be thrown in with it as Trautvetter and Gelert have done. The intermediate forms in the Copenhagen collection, of which Gelert speaks (l. c., p. 8), may, in my opinion, always without hesitation be placed under one of them.

The characters which especially distinguish *W. glabella* from the last species are: — the stipes is covered with scales only below the node, up to the first pair of leaflets there may be a few hairs, but no scales; the whole rachis and the leaflets are entirely glabrous; the lower leaflets are more rounded than in *W. ilvensis,* deeply intersected, with cuneate lobes; the veins of the leaflet distinctly visible, divergent, in *W. ilvensis* so obscure as to be hardly visible even if the leaf is held up to the light.

It grew in rockclefts and was doubtless more spread than the preceding one.

Occurrence. Hayes Sound region: "Edwards Grief" (Hart), Twin Glacier Valley (Hart, 851), Cape Viele (866), Lastraea Valley (1238), low point west of Cape Rutherford (1348). South coast: Harbour Fjord, Big Valley, Seagull Rock, Spade point (2529), Lake Valley and the precipices east of the anchorage (2036, 2235, 2459, 2536, 2543) to the "green patch" (1861, 2554), Western Sound, valley on Sir Inglis Peak (2165). Not found outside the archaean territory.

Distribution: East and West Greenland, Arctic American Archipelago, Arctic America and down to Lake Superior and the Northwestern United States, Alaska, Land of the Chukches, East Siberia, Kamshatka, mouth of the Lena River, Ural, Arctic Russia, Spitsbergen, Northern Scandinavia, the Alps.

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Explanation of the plates.

Plate 1.

Fig. 1. *Taraxacum hyparcticum*, DAHLST., habit, specimen from Fram Harbour, July 20, 1899 (1086); $^1/_1$.
– 2. *Taraxacum pumilum*, DAHLST., habit, specimen from Ptarmigan Gorge, Goose Fjord, Aug. 13, 1901 (3394); $^1/_1$.
– 3. *Draba subcapitata*, SIMM., habit, flowering state, specimen from Gull Cove, Goose Fjord, July 17, 1901 (2896); $^1/_1$.
– 4. – – habit, fruiting state, Yellow Hill, Goose Fjord, Aug. 23, 1901 (3591); $^1/_1$.
– 5. – – leaf. $^2/_1$.
– 6. – – sepal, $^4/_1$.
– 7. – – petal, $^4/_1$.
– 8. – – cluster of fruits, $^2/_1$.

Plate 2.

Fig. 1. *Pedicularis lanata*, CHAM. & SCHLECHT, habit, specimen from the valley on Sir Inglis Peak, Harbour Fjord, July 21, 1900 (2186); $^1/_1$.
– 2 – – capsule, specimen from Fram Fjord, Aug. 26, 1899 (1649); $^1/_1$.
– 3. – – corolla, $^2/_1$.
– 4. *Pedicularis arctica*, R. BR., habit, specimen from Lastraea Valley, July 8, 1899 (858); $^1/_1$.
– 5. – – capsule, specimen from the same locality; $^1/_1$.
– 6. – – corolla, $^2/_1$.
– 7. *Pedicularis hirsuta*, L., habit, fruiting state, specimen from Fram Fjord, Aug. 26, 1899 (1651); $^1/_1$.
– 8. – – corolla, $^2/_1$.

Plate 3.

Fig. 1. *Pedicularis hirsuta*, L., habit, specimen from Fram Harbour, July 20, 1899 (1107); $^1/_1$.
– 2. *Ranunculus Sabinei*, R. BR., habit, younger specimen from Ptarmigan Gorge, Goose Fjord, Aug. 8, 1901 (3334); $^1/_1$.
– 3. – – habit, somewhat older specimen from Gallows Point, Goose Fjord, July 31, 1901 (3787); $^1/_1$.
– 4. – – habit, fruiting specimen from the ridge east of 3rd quarters, Goose Fjord, Aug. 19, 1901 (4230); $^1/_1$.
– 5. – – flower, $^2/_1$.
– 6. – – sepal, $^2/_1$.
– 7. – – petal, $^2/_1$.
– 8. – – achene, $^8/_1$.

Plate 4.

Fig. 1. *Potentilla Vahliana*, LEHM., habit, specimen from Gallows Point, Goose Fjord, July 31, 1901 (3000); $^1/_2$.

Fig. 2. *Ranunculus affinis*, R. Br., habit; $^1/_2$.
— 3. — — basal leaves, $^1/_2$.
— 4. — — flower, all specimens from Seagull Rock, Harbour Fjord, Aug. 8, 1900 (2595); $^1/_2$.
— 5. — — achene, $^5/_1$.

Plate 5.

Fig. 1. *Potentilla rubricaulis*, Lehm., habit, specimen from Seagull Rock, Harbour Fjord, Aug. 8, 1900 (2650); $^1/_1$.
— 2. — — 3-digitate leaf from above and from below, specimens from Fram Harbour, July 20, 1899 (1880); $^1/_1$.
— 3. — — pinnate leaf, specimen from the same locality; $^1/_1$.

Plate 6.

Fig. 1. *Draba alpina*, L., var. *gracilescens*, Simm., flowering state, specimens from Falcon Cliff, Goose Fjord, July 20, 1901 (2888); $^1/_1$.
— 2. — — with young fruit, specimen from the same collection; $^1/_1$.
— 3. — — with ripe fruit, specimen from the same place, Aug. 5, 1902 (4007); $^1/_1$.
— 4. *Alsine Rossii*, R. Br., habit, specimen from the Barren Vallies, Harbour Fjord, July 28, 1900 (2390); $^1/_1$.
— 5. — — flower, from above; $^2/_1$.
— 6. — — side view, $^2/_1$.

Plate 7.

Fig. 1. *Saxifraga * exaratoides*, Simm., habit.
— 2. — — habit.
— 3. — — inflorescence, all specimens from Falcon Cliff, Goose Fjord, July 20, 1901 (2870); $^1/_1$.
— 4. — — flower, from above; $^2/_1$.
— 5. — — side view, 2 sepals and 2 petals removed; $^2/_1$.
— 6. *Salix arctica*, Pall., leaf of f. *typica* from below, specimen from Cocked Hat Island, July 30, 1899 (4234); $^1/_1$.
— 7. — — var. *Brownii*, Anderss., leaf from above, specimen from Falcon Cliff, Goose Fjord, July 20, 1901 (2891); $^1/_1$.
— 8. — — — leaf from below, specimen from Fram Harbour, Aug. 4, 1899 (1419); $^1/_1$.
— 9. — — — 2 leaves from above, specimens from Cocked Hat Island, July 20, 1899 (1216); $^1/_1$.
— 10. — — — leaf from above, specimen from Bedford Pim Island, July 31, 1899 (1310); $^1/_1$.
— 11. — — — leaf in young state, from above, specimen from the Eskimo tentplace at Cape Viele, July 4, 1899 (885); $^1/_1$.
— 12. — — var. *groenlandica*, Anderss., leaf from above, specimen from Fram Harbour, June 24, 1899; $^1/_1$.
— 13. — — young plant, specimen from Lastraea Valley, July 8, 1899 (797); $^1/_1$.

Plate 8.

Fig. 1. *Poa pratensis*, L., f. *prolifera*, habit, specimen from the gravel ridge east of 3rd quarters, Goose Fjord, Aug. 19, 1901 (3480); $^1/_1$.
— 2. *Poa evagans*, Simm., habit, specimen from the Western valley in Fram Fjord, Aug. 26, 1899 (4242); $^1/_1$.
— 3. — — spikelet, $^3/_1$.

Fig. 4. *Poa evagans*, SIMM., lower pale; $^4/_1$.
— 5. — — upper pale, $^4/_1$.
— 6. — — lower glume, $^4/_1$.
— 7. — — upper glume, $^4/_1$.

Plate 9.

Fig. 1. *Carex membranopacta*, BAIL., habit, specimen from swamps east of the anchorage in Harbour Fjord, July 23, 1900 (2329); $^1/_2$.
— 2. — — scale from the staminate spikelet, $^2/_1$.
— 3. — — scale from a pistillate spikelet, $^2/_1$.
— 4. — — utricle, $^2/_1$.
— 5. *Poa glauca*, VAHL, f. *prolifera*, habit, specimen from Midday Knoll, Goose Fjord, Aug. 26, 1901 (3643); $^1/_2$.
— 6. — — var. *tenuior*, SIMM., habit, specimen from the Western valley in Fram Fjord, Aug. 26, 1899 (1628); $^1/_2$.
— 7. *Aira caespitosa*, L. var. *arctica*, (TRIN.) SIMM., habit, specimen from Yellow Hill, Goose Fjord, Aug. 22, 1901 (3577); $^1/_2$.

Plate 10.

Fig. 1. *Pleuropogon Sabinei*, R. BR. f. *aquatica*, habit, specimen from a lakelet in the Western valley in Fram Fjord, Aug. 26, 1899 (1600); $^1/_2$.
— 2. — — f. *terrestris*, habit, specimen from Fram Fjord, Aug. 26, 1899 (1666); $^1/_2$.

All figures are from specimens collected in Ellesmereland, the figures of habit photographed from dried specimens and of natural size but for the plates 4, 9, and 10, representing plants, that must be reduced on account of the size of the plates. The magnified detail-figures are drawn by Miss L. BERGKLINT.

ERRATA.

P.	4,	line 14,	read	"the knowledge"	for	"a knowledge".
„	9,	— 5,	—	"Pflanzenfam."	„	"Planzenfam".
„	35,	— 4,	—	"*Statice* and"	„	"*Statice* end".
„	81,	fig. 1,	—	"hairforms"	„	"hairsforms".
„	99,		—	"Papaveraceae"	„	"Papaveracea".
„	101,		—	"Ranunculaceae"	„	"Ranunculacea".
„	112,	line 29,	—	"base"	„	"bases".

Printed 14. may 1906.

1. Taraxacum hyparcticum. 2. T. pumilum. 3-7. Draba subcapitata.

Auto. o. tr. Justus Cederquist Sthlm.

1-3. Pedicularis lanata. 4-6. P. arctica. 7-8. P. hirsuta.

Auto o. tr. Justus Cederquist Sthlm.

1. Pedicularis hirsuta. 2-8. Ranunculus Sabinei.

Auto o. tr Justus Cederquist Sthlm.

1. Potentilla Vahliana. 2-5. Ranunculus affinis.

Auto. o. tr. Justus Cederquist Sthlm.

Potentilla rubricaulis.

Auto o. tr. Justus Cederquist Sthlm.

1-3. Draba alpina var. gracilescens. 4-6. Alsine Rossii.

Auto o. tr. Justus Cederquist Sthlm.

1-5. Saxifraga * exaratoides. 6-13. Salix arctica.

Auto. o. tr. Justus Cederquist Sthlm.

1. Poa pratensis f. prolifera. 2-7. P. evagans.

Auto. o. tr. Justus Cederquist, Sthlm.

1-4. Carex membranopacta. 5. Poa glauca f. prolifera. 6. P. glauca var. tenuior.
7. Aira caespitosa var. arctica.

Auto. o. tr. Justus Cederquist Sthlm.

Pleuropogon Sabinei.

REPORT OF THE SECOND NORWEGIAN ARCTIC EXPEDITION
IN THE "FRAM" 1898—1902. No. 3.

EMBR. STRAND:

COLEOPTERA, HYMENOPTERA, LEPIDOPTERA UND ARANEAE

AT THE EXPENCE OF THE FRIDTJOF NANSEN
FUND FOR THE ADVANCEMENT OF SCIENCE

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Coleoptera, Hymenoptera, Lepidoptera und Araneae

bearbeitet

von

Embr. Strand.

Unsere Kenntniss der *Insecten*fauna *Grönlands* ist, Dank den vielen wissenschaftlichen Expeditionen, die dorthin unternommen worden sind, schon als ziemlich gut anzusehen; Grönland gehört in entomologischer Beziehung unter den am besten durchforschten Polarländern. Klein wie die Anzahl der dort aufgefundenen Insectenarten ist, ist die Litteratur darüber dennoch ziemlich reich und, wie es mit der entomologischen Litteratur leider zu viel der Fall ist, sehr zerstreut. Ein Verzeichniss darüber zusammenzustellen ist deshalb zwar eine mühevolle, aber dankenswerthe Arbeit, wodurch künftiges Studium der Fauna Grönlands erleichtert werden wird. Ein solches Litteratur-Verzeichniss bis zum Jahre 1887 verdanken wir Prof. AURIVILLIUS in seiner schönen Arbeit „Grönlands Insektfauna I"; die seit dieser Zeit erschienenen Mittheilungen über grönländische Insecten finden sich, soweit sie die von mir bearbeiteten Gruppen behandeln und mir bekannt sind, in der unten gegebenen Liste aufgeführt. Die ältere einschlägige Litteratur wolle man also in AURIVILLIUS suchen.

Wenn auch das Material der Expedition grösstentheils von Ellesmere Land herrührt, hat die Litteratur über die grönländische Fauna jedoch besonderen Werth auch für das Studium der Fauna von Ellesmere Land. — Weitere einschlägige Litteratur wird unten in Fussnoten erwähnt.

1890. AURIVILLIUS: Grönlands Insektfauna I. Lepidoptera, Hymenoptera. [„Bihang till K. svenska Vet.-Akad. Handlingar" 15, Afd. IV, No. 1.]

1892. SKINNER in „Entomological News", III. (Ueber *Dasychira groenlandica* WCK. und *Colias hecla pallida n. var.*)

1892. SKINNER and MENGEL: Greenland Lepidoptera. [„Proc. of the Acad. of Nat. Sc. of Philadelphia", 1892].
1892. FOX: Report on the Hymenoptera collected in West Greenland [ibid.].
1893. LUNDBECK: Entomologiske undersøgelser i Vest-Grønland 1889 og 1890. [„Meddelelser om Grønland", h. 7.]
1894. FERNALD in „Entomological News" V. (Beschreibung von *Olethreutes Mengelana* FERN.)
1896. LUNDBECK in „Meddelelser om Grønland", h. 19. (Ueber *Lathridius minutus* L., *Cryptophagus validus* KR. u. *C. acutangulus* GYLL.)
1896. LUNDBECK: Coleoptera Groenlandica. [„Videnskabelige meddelelser fra den naturh. forening i Kjøbenhavn".]
1896. LUNDBECK: Hymenoptera Groenlandica. [ibid.]
1896. BANG-HAAS: Lepidoptera Groenlandica. [ibid.]
1897. VANHÖFFEN in „Grönland-Expedition der Gesellschaft für Erdkunde in Berlin 1891—93", II. (Uebersicht der ganzen Insecten-Fauna, biologische Beobachtungen etc.)
1898. FERNALD in „The Pterophoridae of North America". (Beschreibung von *Stenoptilia Mengeli* FERN.)
1899. DYAR in „Psyche" VIII. (Ueber die Raupe von *Dasychira groenlandica* WCK.)
1900. AURIVILLIUS: Lepidoptera och Coleoptera insamlade under prof. A. G. Nathorst's arktiska expeditioner 1898 och 1899, under den svenska expedionen till Beeren Eiland 1899 och under konservator G. Kolthoff's expedition till Grønland 1900. [„Öfv. af Kgl. Vet.-Akad. Förhandl." 1900. No. 10.]
1901. STAUDINGER und REBEL in „Catalog der Lepidopteren des palaearctischen Faunengebietes". (Ueber das Vorkommen in Grönland von u. a. *Agrotis dissona* MÖSCHL. (mit Ausschluss von *A. islandica* STGR.) (Pag. 149); *Anarta Zetterstedti* STGR. (Pag. 219); *Tephrocl. hyperboreata* STGR. u. *gelidata* MÖSCHL. (Pag. 317); *Olethreutes boreana* RBL. *n. nom.* statt *septentrionana* MÖSCHL. (II. P. 107).)
1901. PAGENSTECHER in „Fauna arctica", Bd. 2, Lief. 2. (Uebersicht der Lepidopteren-Fauna Grönlands.)
1901. SAHLBERG: Aleocharider insamlade i polarregionerna af svenska expeditionerna 1883 och 1899. [„Entomologisk tidsskrift", 1901.]
[1894. TUTT: Melanism in Greenland [„Entom. Record", V, No. 6] ist mir unbekannt.]

Ich beschränke mich im folgenden darauf die von der Expedition mitgebrachten Arten zu besprechen ohne eine Uebersicht über sämmtliche aus Grönland und Ellesmere Land bekannte Arten der betr. Ordnungen zu geben; solche Verzeichnisse wird man in der oben angeführten Litteratur (bei AURIVILLIUS, LUNDBECK, BANG-HAAS und VANHÖFFEN) finden. Nur bei besonders bemerkenswerthen Fünden werden die zuvor bekannt gegebenen Fundorte erwähnt, bezw. die allgemeine geographische Verbreitung der Art besprochen.

Coleoptera.

1. *Colymbetes dolabratus* Pk.

Eine dieser Art gewiss angehörende Larve wurde bei Godhavn (Grönland) in einem Süsswasserteich gefunden.

2. *Micralymma brevilingue* Schiödte.

Ein Exemplar dieser bisher nur in Grönland gefundenen, aber dort gemeinen, Art wurde bei Cocked Hat (Cape Sabine, Kane Basin) $^{30}/_{7}$ 99 von Simmons gefunden[1].

3. *Lathridius minutus* L.

Ein einziges Stück bei Alexandrafjord (Hayes Sound) $^{3}/_{8}$ 99 von Simmons gesammelt.

In Grönland wurde diese Art bisher nur bei Egedesminde und zwar ein Unicum gesammelt; wahrscheinlich bezieht aber die *Silpha pedicularia* von Otto Fabricius sich auf diese Art, und sie wäre demnach auch bei Fredrikshaab, obendrein „non infrequens" (Fabr.), gefunden worden.

4. *Cryptophagus populi* Pk.

Unicum bei Foulke Fjord (Nord-Grönland) (?) $^{11}/_{8}$ 99 von Simmons gesammelt. Die Art wäre neu für die Fauna Grönlands, aber die Lokalitätsangabe scheint unsicher zu sein, indem sie auf der Etiquette mit Fragezeichen versehen ist, weshalb das Specimen vielleicht anderswo herrührt. Da die Art in Europa weit verbreitet ist, wäre es nicht besonders bemerkenswerth, wenn sie dann und wann nach Grönland verschleppt würde, wie es mit vielen anderen, in Grönland ursprünglich nicht einheimischen, Arten (z. B. *Dermestes lardarius* L., *Attagenus pellio* L., *Ptinus fur* L., *Tetropium luridum* L., *Callidium violaceum* L.) der Fall ist.

Von dieser Gattung wurden nach Lundbeck („Meddelelser om Grönland", 19 (1896)) bisher *Cr. validus* Kr. und *Cr. acutangulus* Gyll. in Grönland beobachtet; er vermuthet aber, dass sie eingeschleppt worden sind und nimmt sie in „Coleoptera Groenlandica" nicht auf. Nach

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[1] Wo nichts anders gesagt ist, wurden die Specimina von Herrn E. Bay gesammelt.

M'LACHLAN[2] brachte FEILDEN ein Stück von *Cr. acutangulus* GYLL. von Floeberg Beach (Grant Land 82° 27′) mit, aber dies Exemplar war gewiss dorthin mit dem Schiffe verschleppt worden.

Hymenoptera.

Apidae.

1. *Bombus hyperboreus* SCHÖNH.

Von dieser in den Polarländern weit verbreiteten, circumpolären, Art wurden 3 ♀♀ gesammelt und zwar bei Galgeodden (Gaasefjord, Jones Sound, Ellesmere Land) 22/7 1901, „den grønne plet" (Havnefjord, Jones Sound) 18/6 1900 und Rice Strait (Smith Sound) 26/6 1899.

Nach LUNDBECK kommt die Art längs der ganzen Westküste Grönlands vor und ist auch an vielen Orten längs der Ostküste gefunden worden.

2. *Bombus balteatus* DAHLB. (= *nivalis* DAHLB.).

Diese Art wurde viel häufiger gefunden, indem im ganzen 18 Exemplare mitgebracht wurden, davon waren 6 ♀♀, 5 ♂♂ und 7 ☿☿. Die Fundorte sind die folgenden:

Cap Rutherford (Hayes Sound, Ellesmere Land) 27/6 99 (1 ♂ 2 ☿☿); Fort Juliane (ibid.) 7/7 99 (1 ♀) und 6/7 99(?) (1 ♂ 1 ☿); Godhavn 30/7 98 (☿); Havnen, Rice Strait (Ellesmere Ld.) 29/6 99 (1 ☿), 30/7 99 (1 ☿) und 1/8 99 (1 ♂); Havnen, Havnefjord (Jones Sd.) 27/6 1900 (1 ♀) (Simmons), 23/7 1900 (1 ♀), 24/7 1900 (1 ♀), und 7/8 1900 (2 ♂♂); Gaasefjord (Jones Sd., Ellesmere Ld.) 3/7 1902 (2 ♀♀) und 9/7 1902 (1 ☿) (Baumann).

Diese Hummel wurde am weitesten gegen Norden beobachtet, indem sie nach M'LACHLAN von FEILDEN bei 81° 45′ angetroffen wurde.

Ichneumonidae.

3. *Ichneumon erythromelas* M'LACHL.

Ein Unicum dieser Art wurde bei Rice Strait, Ellesmere Ld., 1/6 99 gefunden. Sie war bisher nur vom Grant Land (82° 33′) bekannt.

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[1] M'LACHLAN: Report on the Insecta collected by FEILDEN and HART ...... during the recent Arctic Expedition. [„Journal of the Linn. Soc., Zool. XIV.]

Das Exemplar weicht von der Beschreibung M'LACHLAN's in zwei Puncten ab. Es ist 8 statt 6 mm. lang; ausserdem sind es die Femora, die „shining black, excepting the extreme tips“ sind, während die Tibia „externally with a black line“ versehen sind. — Sollte vielleicht der Autor der Art durch ein Schreibfehler die Wörter „Tibiae“ und „Femora“ verwechselt haben, so dass er „Tibiae“ geschrieben hat, wo er „Femora“ meinte und umgekehrt? — Falls die von M'LACHLAN beschriebene Form wirklich (ad. p.) rothgefärbte Femora hat, kann mein Exemplar als eine besondere Varietät angesehen werden, wofür ich den Namen *v. tibialis* vorschlagen möchte. Als einer von *erythromelas*, dessen Beschreibung sonst völlig stimmt, verschiedenen Art angehörend, kann meine Form nicht angesehen werden; wissen wir ja, dass die Ichneumonen in Betreff der Farbe der Beine sehr variirend sind und dem Unterschied in der Grösse kann eine wesentliche Bedeutung auch nicht zugeschrieben werden. Von den aus Grönland zuvor bekannten Arten kommt die in Frage stehende Art *I. bucculentus* WESM. am nächsten, ist jedoch davon zweifellos verschieden.

4. *Limneria extrema* HOLMGR.

Von dieser bisher nur aus „Nordgrönland“ (HOLMGREN[1]) angegebenen Art, wurde ein Stück bei Godhavn 30/7 1898 gesammelt.

Tenthredinidae.

5. *Nematus borealis* MARLATT.

Von dieser bisher nur von der Disco-Insel bekannten und von MARLATT in Fox l. c. (1892) beschriebenen Art wurde ein ♂ bei Gaasefjord (Ellesmere Ld.) 30/6 1902 gesammelt.

Von *N. obductus* HART., der in Grønland vorkommt, und womit LUNDBECK die Art MARLATT's als synonym anzusehen geneigt wäre, zweifellos verschieden. Ebensowenig fällt sie mit *Tenthredo borealis* ZETT. (= *Nematus quercus* HART.) zusammen.

6. *Nematus stordalensis* STRAND *n. sp.*

Zwei Exemplare dieser *N. borealis* nahestehenden, aber sicher davon verschiedenen Art, wurden gesammelt: „Den grønne plet“ (Havnen, Havnefjorden) 18/6 1900 (♀) und Stordalen (Havnefjord) 20/6 1900 (♂).

[1] HOLMGREN: Insekter från Nordgrönland, samlade af Prof. A. E. Nordenskiöld år 1870. [„Öfvers. af Kgl. Vet.-Akad. Förhandl.“ 29 (1872).]

Von *Nematus borealis* Marl. unterscheidet sich die neue Art besonders dadurch, dass die Seiten von Mesothorax nicht glatt und glänzend, sondern fein granulirt, matt, sind. Ausserdem ist das Feld der Ocellen weniger erhöht und nicht so scharf abgesetzt wie bei *borealis*; die Ocellen glänzen rothbraun, wärend diejenigen von *borealis* schwarz, glanzlos, sind. Körperbau im ganzen mehr robust als bei *borealis*. Das Weibchen ist ausserdem ein wenig anders gefärbt: Tegulae und Pronotum sind gelb, Scutellum und Tempora röthlich; Femora oben mit einer gelben Linie, die Trochanteres röthlich.

7. *Nematus marginifer* Strand *n. sp.*

Ein einziges Männchen dieser ebenfalls *Nematus borealis* nahestehenden Art wurde bei Beistadfjorden 9/6 1899 von Simmons gesammelt.

Von *Nematus borealis* unterscheidet diese neue Art ebenso wie die vorhergehende sich auf den ersten Blick durch fein granulirte, matte Seiten von Mesothorax. Auch die Oberseite ist matter, weniger glänzend, als bei sowohl *N. borealis* als *N. stordalensis*; mit der letzten Art hat *N. marginifer* die rothbraun glänzenden Ocellen und mehr robusten Körperbau gemein. Die gelbgefärbten Glieder der Extremitäten sind bei *N. marginifer* heller als bei den beiden anderen Arten. Von *N. stordalensis* unterscheidet sie sich am meisten dadurch, dass die Augen von einer scharfen erhabenen Kante umgeben und dadurch von Tempora getrennt sind; durch dieses Merkmal kann sie auch von *Nematus borealis* sofort unterschieden werden. Der Name der Art ist, wie es sich daher versteht, von den marginaten Tempora geliehen.

Lepidoptera.

1. *Colias hecla* Lef.

Nur zwei Stück wurden gesammelt: ein ♂ bei Fort Juliane 6/7 1899 und ein ♀ bei Godhavn 30/7 1898.

Wie es bei mehreren *Colias*-Arten beobachtet wurde, kommt auch bei dieser Art nicht eben selten eine hellere Farbenänderung vor, die schon mehrfach mit eigenen Namen belegt wurde. Sie wurde zuerst von M'Lachlan (l. c.) als *var. glacialis* beschrieben; seine Exemplare rührten von Grinnell und Grant Land her, und er sah in denselben eine nur in den höchsten Breitengraden vorkommende Lokalvarietät. Dieselbe Form

wurde später von SKINNER (l. c.) als *var. pallida* beschrieben, trotzdem dass sie, wie er gleichseitig darauf aufmerksam machte, zuvor den Namen *glacialis* erhalten hatte. Während alle 4 Exemplare, die M'LACHLAN zur Untersuchung vorlagen, der bleichen Form angehörten, fanden sich unter den vielen Stücken, die SKINNER zur Verfügung standen, nur ein einziges, das auffallend hellgefärbt war. Da auch diese Exemplare von hohen Breitengraden (77° 40′) herrührten, geht es also hervor, dass die bleichgefärbte Form auch dort nur vereinzelt vorkommt, und dass die Rede also nicht von einer Lokalvarietät, sondern nur von einer Aberration, sein kann. Die Namengebung SKINNERS war also doppel verfehlt. Uebrigens kommen ähnliche hellgefärbte Stücke auch im arktischen Skandinavien vor; dieselben sind als *ab. Sandahli* LPA. bekannt gemacht.

2. *Argynnis chariclea* SCHN. *v. arctica* ZETT.

Diese Art wurde häufig angetroffen, und zwar liegen nicht weniger als 16 Exemplare vor. Die Fundorte und Fangzeiten sind die folgenden:

Godhavn 30/7 98; Skreia (Havnefjorden, Jones Sd.) 21/7 1900 (SCHEI); Havnen, Havnefjorden (Jones Sd.) 23/7 1900; ibid. 24/7 1900; ibid. 7/8 1900 (SIMMONS).

In der Grösse schwanken die Exemplare zwischen 30 und 38 mm.s Expansion; von den 5 Stücken, die beim Winterhafen 23/7 1900 gesammelt wurden, massen 4 nur 30 mm., das 5te dagegen 35 mm.

Besonders bemerkenswerthe Aberrationen finden sich nicht. Es ist mit diesem Material vor Augen kaum zu verstehen, dass die Art so geneigt zur Bildung von Aberrationen ist, wie sie nach den Bemerkungen M'LACHLAN's sein soll. Auch haben andere Verfasser, die über diese Art geschrieben, z. B. STAUDINGER[1] und AURIVILLIUS (l. c.), eine solche Variationsfähigkeit der Art gar nicht zugeschrieben. Es liegt daher nahe zu vermuthen, dass die ausserordentliche Variabilität, welche an den von M'LACHLAN untersuchten Exemplaren konstatirt wurde, gerade für die aus den allerhöchsten Breitengraden (in diesem Falle 79°—81° 52′) stammenden Exemplare charachteristisch ist oder das ganz extraordinäre Umstände in diesem Falle dabei thätig gewesen waren. — Auch die von mir untersuchten finmarkischen Stücke im Zoologischen Museum zu Kristiania zeichnen sich nicht durch auffallende Farbenänderungen aus.

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[1] STAUDINGER: Reise nach Finmarken. [„Stettiner entom. Zeitung", 1861].
— Beitrag zur Lepidopteren-Fauna Grönlands [ibid. 1857].

Nur zwei von den vorliegenden Exemplaren sind so abweichend, dass sie eine nähere Besprechung verdienen. Das Stück von Skreia ist sehr dunkelgefärbt; die rothgelbe Färbung auf der Oberseite beschränkt sich auf eine schmale Binde, welche die äussere, in diesem Falle zusammenhängende, Fleckenreihe einschliesst; die Saumflecke und die Bogenflecke sind zu einer einzigen Binde zusammengeflossen. Die Unterseite der Flügel ist normal. — Dem Stück von Havnefjorden 1/8 1900 fehlt es beinahe ganz an brauner Bestäubung an der Mittelbinde der Unterseite der Hinterflügel. Sonst ist es wie gewöhnlich gefärbt und gezeichnet.

Was die Unterschiede zwischen der grönländischen Lokalvarietät *arctica* und der Stammform, sowie der *var. Boisduvali* Dup. betrifft, so sind diese so ausgezeichnet von Aurivillius (l. c.) besprochen worden, dass es nicht nöthig ist, sich darüber auslassen.

3. *Argynnis polaris* Boisd. *v. americana* Strand *n. v.*

Es liegen 8 Exemplare vor, die folgender Orte gesammelt wurden: Havnen, Rice Strait (Ellesmere Ld.) 29/6 99; ibid. 25/7 99; Havnefjorden (Jones Sd.) 22/7 1900; Gaasefjorden (Ellesmere Ld.) 30/6 02; die Westseite von Gaasefjorden 6/7 1902 (Baumann).

Das grösste Stück misst 45 mm., das kleinste 34 mm.; die Variationen in der Grösse sind also recht bedeutend.

Besonders in die Augen fallende Unterschiede zwischen den amerikanischen und finmarkischen Exemplare dieser Art können allerdings kaum nachgewiesen werden. Doch giebt es einen, wie es scheint, konstanten Unterschied auf der Unterseite der Hinterflügel, ähnlich demjenigen von *chariclea*, indem bei den norwegischen Exemplaren in der Mittelbinde der weisse Fleck in Zelle 7 an der Innenseite tiefer eingeschnitten und in zwei schärfere Spitzen ausgezogen ist. Im Saumfelde ist der helle Wisch an Rippe 4 gewöhnlich deutlicher und der hinterste von den weissen Wurzelflecken (in Zelle 1 c) länger und an der Aussenseite scharf zugespitzt an norwegischen Exemplaren; an grönländischen Stücken ist der gedachte Fleck hier breit abgerundet oder sogar quer abgeschnitten. Endlich scheint der Lichtstreif im äusseren Zwischenfeld bei der europäischen Form etwas deutlicher zu sein.

Die angegebenen Verschiedenheiten scheinen eine eigene Varietätsbenennung zu rechtfertigen; als solche schlage ich für die amerikanische Form *v. americana m.* vor. Da Boisduval die Art nach Exemplaren

von „Cap Nord“ beschrieb, muss die europäische Form als die Hauptform angesehen werden, und die Varietätsbenennung muss also der amerikanischen angehören.

4. *Lycaena orbitulus* Prun. v. *Franklini* Curt.

Wurde bei Fort Juliane 7/7 99, beim Havnen, Havnefjorden (Jones Sd.) 22/7 1900 und ibid. am 7/8 1900 (Simmons) gesammelt; zusammen 4 Exemplare, die alle wenig gut erhalten sind, so dass sie im frischen Zustande gewiss etwas anders aussehen würden. Die Grösse derselben schwankt zwischen 20 und 22 mm.

Verglichen mit der im arktischen Norwegen vorkommenden Form, *aquilina* Stgr., ist in der Grösse kaum ein Unterschied zu bemerken, indem die meisten norwegischen *aquilina*, die ich gesehen habe, durchgehends nicht grösser als *Franklini* sind. Die Oberseite ist bei beiden gleich, jedoch dürfen frische *Franklini* wohl etwas dunkler sein. Die Unterseite ist dunkler, wenigstens auf den Hinterflügeln; letztere haben schärfere Augenflecke, wovon diejenigen am Vorderrande mit schwarzen Pupillen versehen sind. Auf der Unterseite der Hinterflügel findet sich bei allen 4 Stücken in der Mitte des Innenrandes oder ein wenig näher dem Analwinkel ein weisser Fleck, der zusammen mit den zwei Wurzelflecken eine gerade Linie bildet. Dieser Fleck ist weder an der Figur Curtis's[1] angedeutet, noch wird er von Herrich-Schäffer[2] erwähnt. Ein solcher Fleck kann jedoch auch, wenn auch viel undeutlicher, bei *aquilina* vorkommen. Die Saumflecke der Unterseite der Vorderflügel sind an der Innerseite von zusammenhängenden, schwarzen Bogen begrenzt; letztere bilden also einen schwarzen Querstreif auf dem Flügel. Innerhalb des schwarzen Discoidalfleckes der Vorderflügel findet sich bei *aquilina* kein oder nur ein undeutlicher weisser Fleck; dieser ist bei allen 4 Stücken von *Franklini* gross und deutlich, was auch mit dem Discoidalfleck der Fall ist.

Curtis erzählt, das die von ihm beschriebenen Stücke auf *Astragalus alpinus* gefangen wurden.

Diese Art wurde 1900 von Aurivillius l. c. als für die Fauna Grönlands neu angegeben und zwar von Hurry Inlet and Mackenzie-Bucht. Sie var jedoch schon 1892 von Skinner und Mengel l. c. in

[1] Curtis: Descr. of the Insects in „Appendix to the Narr. af the Sec. Voyage of Ross“. 1835.

[2] Herrich-Schäffer: System. Bearbeitung d. Schmett. von Europa. (B. VI, Pag. 28 (*Lyc. aquilo*).)

ihrem Verzeichniss der bei McCormick Bay, Herbert Island und Disco gesammelten Schmetterlinge aufgeführt. Jedenfalls gehört sie unter den wenig häufigen Arten Grönlands, und sie dürfte auch in Ellesmere Land nicht häufig sein.

5. *Dasychira groenlandica* Wck.

Nur zwei Imagines wurden gesammelt: Gaasefjorden 29/6 1902 (Henriksen) (♂) und 2/7 1902 (♀). — Das Männchen misst 40 mm., das Weibchen 53 mm. Beim Männchen sind die beiden Querlinien der Vorderflügel deutlich.

Die leicht kenntliche Raupe dieser Art wurde viel öfter gefunden und zwar an folgenden Orten:

Foulke Fjord (Nord-Grönland) 16/8 1898 (eine ganz junge Raupe); Fort Juliane 5/6 1899 (Simmons); Havnen, Havnefjorden (Ellesmere Ld.) 5/6 1900 (Schei), ibid. 17/6 1900; ibid. 11/6 1900; Moskusfjord (Jones Sound) Juli 1900; Gaasefjord 29/5 1902 (Baumann); Indre Eide (Gaasefjorden) 1/6 1902; 20/6 1902.

Ausserdem wurden Cocons gefunden: Egedesminde 28/7 98, Godhavn 30/7 98, Cap Rutherford (Hayes Sound) 30/8 98 und Stordalen (Havnefjorden) 20/7 1900.

Die Raupe ist schon wiederholt beschrieben worden, so von Homeyer[1], Dyar[2], Aurivillius l. c., so dass eine nochmalige Beschreibung unnöthig ist. — Wie schon Herrich-Schäffer (bei Homeyer l. c.) vermuthete, überwintert die Raupe zweimal, nach dem was Aurivillius hat konstatiren können.

6. *Anarta Richardsoni* Curt.

Diese Art wurde zu wiederholten Malen angetroffen und zwar bei: Godhavn 30/7 1898; Rice Strait (Ellesmere Ld.) 4/8 1899; Havnefjorden 24/7 1900; Skrabdalen (Gaasefjorden) 16/7 1901 (Schei) und Gaasefjorden 3/7 1902.

Die Exemplare weisen z. Th. nicht unerhebliche Verschiedenheiten unter sich auf, da sie aber nicht im bestem Zustande sind, gehe ich darauf nicht näher ein. Sie konnten nur durch Untersuchung der Genitalien mit Sicherheit identificirt werden.

In Grösse variiren sie zwischen 29 und 32 mm.

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[1] Homeyer in „Zweite deutsche Nordpolfahrt“ B. II, Abt. I, P. 409.
[2] Dyar in „Psyche“ VIII. P. 153.

Alle norwegische Exemplare, die ich gesehen habe (von Dovre und Finmarken), gehören der Varietät *dovrensis* STGR. an und sehen ziemlich verschieden von den Grönländern aus.

Anm. Nach STAUDINGER und REBELS Catalog kommt auch *Anarta Zetterstedti* STGR *f. pr.* in Grönland vor.

7. *Anarta leucocycla* STGR.

Wurde bei Rice Strait 30/6 1899 (ein neugeschlüpftes Stück!) und 20/7 1899 sowie bei Ostcap, Havnefjorden 7/8 1900 gefunden, überall Unica. Sie sind in wenig gutem Zustande und messen 26—27 mm.

8. *Larentia polata* DUP.

Nur zwei Individuen wurden gefunden und zwar bei Godhavn 30/7 98 und Havnen, Rice Strait 30/7 99.

Erwähnenswerthe Verschiedenheiten von norwegischen Exemplaren finden sich nicht; selbst die Querbinde an der Unterseite der Hinterflügel, die an der Abbildung bei AURIVILLIUS (l. c. 1890) nicht angedeutet ist, tritt deutlich wie bei norwegischen Stücken hervor. Von der Abbildung LEFEBURE's[1] sind sie daher so verschieden, dass man sie nicht zu *v. Brulléi* LEF. ziehen kann. Auch AURIVILLIUS bezeichnet die grönländische Form einfach als *polata* DUP., BANG-HAAS dagegen erklärt l. c., dass die gedachte Form im allgemeinen der Varietät *Brulléi* angehört.

Die zwei Exemplare messen 26 und 27 mm.

9. *Larentia frigidaria* GN. *v. Sabinei* KIRBY (CURT.).

Diese Art wurde häufig angetroffen, indem Exemplare von den folgenden Orten vorhanden sind:

Cap Rutherford (Hayes Sd.) 27/6 99, Moskusfjord (Jones Sd.) 4/7 1900, Havnen, Havnefjorden 24/7 1900, Ødedalene (Havnefjorden) 28/7 1900 (SIMMONS), Bucht bei Lands End (Helvedes-Porten, Jones Sd.) 12/7 1901 (SIMMONS), Gaasefjorden 1/7 1902; ibid. 3/7 1902; ibid. 30/6 1902; ibid. 21/6 1902 (Simmons); ibid. 20/6 1902.

Die drei vorhandenen Weibchen messen 24—25 mm., während das kleinste Männchen 22, das grösste 27 mm. ist. Nach STAUDINGER l. c. ist die Flügelspannung von finmarkischen Exemplaren der Hauptform

[1] LEFEBURE: Description de quelques Lépidoptères nocturnes hyperboréennes. [„Annales d. l. Soc. ent. de France", 1836.]

23—29 mm.; die im Zoologischen Museum zu Kristiania befindlichen Stücke aus Finmarken messen durchgehends 26—29 mm. Die amerikanische Form ist also im allgemeinen etwas kleiner.

Die Flugzeit in Finmarken ist nach STAUDINGER letzte Hälfte von Juli, während SCHØYEN [1] fand, dass die Flugzeit schon bei 5ten Juli vorüber war. Da dieselbe also, wenigstens für die Hauptform, kurz zu sein scheint, hängt es wohl von besonderen Umständen, am meisten wohl von den Witterungsverhältnissen, ab, ob die Art in Grönland Ende Juli oder Ende Juni ihre Hauptflugzeit haben soll.

Besonders erwähnenswerthe Farbenänderungen kommen unter den vorliegenden Exemplaren nicht vor. Dieselben sind jedoch meistens wenig gut erhalten, so dass die Färbung nicht immer genau erkannt werden kann. Die schon von M'LACHLAN beschribene und von SKINNER und MENGEL als *immaculata n. sp.* bekannt gemachte Form ist aller Wahrscheinlichkeit nach nur eine Varietät von *frigidaria*; ein Paar von meinen Stücken scheinen dazu gehört zu haben. — Unter finmarkischen Exemplaren der Hauptform kommen nicht selten auffallende Aberrationen vor. So erwähnt schon STAUDINGER l. c. eine Form, die fast ganz einfarbig schwarzgrau ist (*ab. melanotica m. n. ab.*).

Mit finmarkischen Stücken verglichen weisen die Amerikaner die folgenden Verschiedenheiten auf. Sie sind undeutlicher gezeichnet, die Grundfarbe ist rauchbraun, nicht wie bei ersteren grau oder schwärzlich grau. An den Vorderflügeln ist das helle innere Zwischenfeld ziemlich deutlich, dagegen gehen das Mittelfeld und das Saumfeld in einander über ohne deutlich markirte Grenze, ausgenommen am Vorderrande. Der Discoidalfleck der Vorderflügel kaum wahrnehmbar. Die Fransen sind beinahe ganz einfarbig, die Hinterflügel ohne Andeutung von Querlinien. Die Unterseite ist einfarbig, dunkler, bräunlich grau.

BANG-HAAS schlägt l. c. für die grönländische Form den Namen *v. groenlandicaria* vor. Dieselbe muss jedoch den Namen *Sabinei* KIRBY führen. Der erste Autor dieses Namens ist ja KIRBY, nicht CURTIS; das Werk, worin KIRBY seine zwar unvollständige, aber jedoch kenntliche Beschreibung veröffentlichte: „Suppl. to the Appendix of Captain Parry's Voyage", erschien 1821, während die Beschreibung von CURTIS im Jahre 1835 veröffentlicht wurde. Auch wäre es wohl das richtigste, die zuerst bekannt gegebene Form, *Sabinei*, als die Hauptform anzusehen und *frigidaria* als Varietät dazu zu ziehen. Die grönländischen Exemplare wären demnach als *Lar. Sabinei* KIRBY und unsere europäischen

[1] SCHØYEN: Oversigt over de i Norges arktiske region hidtil fundne lepidoptera. [„Archiv f. mathem. og naturv." B. V.]

als *Lar. Sabinei* KIRBY *v. frigidaria* GN. zu benennen. Die im Cataloge von STAUDINGER und REBEL gebrauchte Benennung wäre so in zwei Puncten zu verbessern.

Dass die zwei in Frage stehenden Formen nicht specifisch verschieden sind, davon habe ich mich durch Untersuchung von den Genitalien überzeugt.

10. *Pyrausta torvalis* MÖSCHL.

Von dieser eigenthümlichen Art liegen drei leider nicht gut erhaltene, aber jedoch sicher bestimmbare, Exemplaren vor, die bei Godhavn 30/7 1898, Havnefjorden 24/7 1900 und Gaasefjorden 3/7 1902 erbeutet wurden.

Die Art wurde zuerst in Labrador aufgefunden, hat sich später als in Grönland weit verbreitet erwiesen und wurde nach der Angabe STAUDINGERS auch als in den Pyreneen vorkommend angegeben[1]. Im neuen Lepidopteren-Catalog steht jedoch keine andere Patria-Angaben als: „Labr."

11. *Olethreutes boreana* RBL. (= *septentrionana* MÖSCHL.)

Nur zwei Exemplare dieser interessanten Art wurden gefunden und zwar bei Havnefjorden (Jones Sd.) 25/6 und 26/6 1900.

Es ist ganz berechtigt, wenn diese Art im neuen Cataloge in der nächsten Nähe von *Schulziana* aufgeführt worden ist, denn sie steht dieser Art so nahe, dass sie unter Exemplaren dieser letzteren gesteckt, nur von einem geübten Auge ohne Schwierigkeit unterschieden werden kann. Aber ebenso gewiss ist es, dass sie von *Schulziana* specifisch verschieden ist; das zuverlässigste Distinctionsmerkmal dürfte wohl in allen Fällen die gestreckteren, schmäleren Vorderflügel sein. Aber unbegreiflich ist es, wie MÖSCHLER sagen kann, dass sie in der Färbung ganz verschieden ist[2]; sie scheint mir auch darin grosse Aehnlichkeit mit *Schulziana* aufzuweisen.

Leider liegen wie gesagt nur 2 Exemplare vor. Diese sind doch in ziemlich gutem Zustande, so dass ich einige Bemerkungen über die Puncten, worin diese wenig gut mit MÖSCHLERS Beschreibung stimmen, bezw. über die Verschiedenheiten von *Schulziana*, geben kann.

Palpen bräunlich grau, die Schneide nur wenig heller. Kopf braun mit einigen eingemengten, grauweissen Haaren. Thorax ebenso gefärbt.

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[1] MÖSCHLER: Beiträge zur Schmetterlings-Fauna von Labrador. [„Stettiner entom. Zeitung" 1883.]

[2] Vielleicht ist das darin begründet, dass das Typeexemplar MÖSCHLERS, wie BANG-HAAS l. c. mittheilt, stark abgerieben war.

Hinterleib bräunlich grau mit eingestreuten weisslichen Haaren. Afterbusch graulichgelb. Beine hellgrau, die Tarsen undeutlich braun geringt.

Die Zeichnungen der Vorderflügel sind bei *boreana* reiner, deutlicher, nicht so verworren, wie bei *Schulziana*. Die weissen Zeichnungen sind wie bei letzterer von schwarzen Fleckchen und Puncten umgeben; diese sind bei *boreana* meistens grösser und treten schärfer hervor. Die Grundfarbe ist mehr graubräunlich, nicht so röthlich oder röthlich gelb; die Zeichnungen sind weiss mit wenigem oder keinem Silberschimmer; zwischen den Zeichnungen stehen keine Silberpuncte, und ebensowenig steht in der Flügelmitte ein runder, makelartiger, Silberpunct wie bei *Schulziana*. In dem Wurzelfelde keine helle Binde, nur ein Paar Flecke. — An der Unterseite der Vorderflügel treten bei *boreana* die weissen Fleckchen am Vorderrande wenig scharf hervor.

Der einzige sicher bekannte Fundort in *Grönland* war Hekla Hafen an der Ostküste (Bang-Haas). Zweifellos ist es jedoch dieselbe Art, die von Aurivillius l. c. (1900) als *Sericoris sp. forte Schulziana* aufgeführt wird. Die von M'Lachlan als *Mixodia sp.* und von Curtis l. c. als *Orthotaenia Bentleyana* (Don.) erwähnten Exemplare dürften vielleich auch *boreana* angehört haben.

12. *Olethreutes groenlandicana* Bang-Haas.

Diese seit dem Auffinden der Typenexemplare nicht wiedergefundene Art liegt in vielen Exemplaren vor. Diese wurden gesammelt:

Bei Cap Rutherford $^{27}/_{6}$ 1899, Havnen, Rice Strait $^{30}/_{6}$ 99; ibid. $^{25}/_{7}$ 99; Havnefjorden $^{27}/_{6}$ 1900 (Simmons). ibid. $^{23}/_{7}$ 1900; Gaasefjorden $^{3}/_{7}$ und $^{30}/_{6}$ 1902.

Die Flügelexpansion ca. 17 mm. (16—18 mm.)

Die vorliegenden Exemplare weichen von der Beschreibung Bang-Haas's dadurch ab, dass die Hinterflügel nicht schwarzgrau, sondern hellgrau mit ebenso gefärbten Fransen sind. Da aber die Beschreibung sonst ganz passt, nehme ich nicht Anstand die Bestimmung als richtig anzusehen, so viel mehr als die Farbe der Hinterflügel offenbar ein wenig variiren kann.

Die weissgraue Binde, welche sich vom Vorderrande bis zum Innenwinkel erstreckt, ist an den meisten Stücken so stark mit dunkleren Querstreifen und Puncten gemischt, dass sie selbst an frischen Exemplaren höchst unregelmässig und undeutlich ist. Nur ein einziges der vorliegenden Exemplare hat die gedachte Binde rein weissgrau ohne andere schwarzen Zeichnungen als die kleinen, abgerundeten, charachteri-

stischen Fleckchen am Vorderrande, welche nie fehlen und in allen Fällen scharf hervortretend sind, sowie der darunter liegende, länglich eiförmige Fleck. Letzterer ist auch nur an dem einen Exemplare scharf hervortretend; an den anderen fliesst er entweder mit den umgebenden kleineren Flecken zusammen, oder was am öftesten der Fall ist, er verschwindet ganz und wird von einem undeutlichen dunklen, schwach bleiglänzenden Streif oder von zahlreichen kleinen dunklen Puncten ersetzt. Bei vielen Exemplaren verbreitet sich die weissgraue Binde gerade bis zur Spitze; der Saum ist doch immer mit schwarzen Zeichnungen versehen, nämlich ausser einem grösseren schwarzen Fleck unmittelbar vor der Spitze, eine Anzahl von 7 kleineren Fleckchen, 2 nahe der Spitze, 2 im Analwinkel und 3 nahestehende oder zusammenhängende in der Mitte; diese Fleckchen fliessen in vielen Fällen zusammen, so dass die Binde an der Aussenseite völlig von Schwarz begrenzt wird. Auch in der gewöhnlich sehr undeutlichen Mittelbinde finden sich am Vorderrande zwei oder drei kleine schwarze Flecke. Die Mittelbinde ist an einigen Exemplaren von einem aus den Vorderrandflecken entspringenden, bis gegen den Innenrand verlaufenden, schwarzen Streifen oder Punctreihe getheilt; am Innerrande ist die Binde am undeutlichsten. In der Mitte des Wurzelfeldes sieht man zwei kleine, hellere, bleiglänzende Häckchen. — Abdomen ist ungefähr wie die Hinterflügel gefärbt. Die Vorderbeine sind grauschwarz mit weissen Flecken an der Vorderseite der Tibien und Tarsen, die Hinterbeine sind grau mit weissen und schwarzen Makeln an der Oberseite der Tarsen.

13. *Stenoptilia Mengeli* Fern.

Ein Unicum von Reindeer Point (Foulke Fjord) in Nord-Grönland 16/8 98 stimmt ganz mit Fernalds übrigens etwas kurz gefasste Beschreibung l. c., so dass die Bestimmung wohl als sicher angesehen werden darf. Der von Bang-Haas erwähnte *Mimaeseoptilus islandicus* Stgr. ist wohl auch dieselbe als Fernalds Art und nicht die richtige isländische Art; Bang-Haas macht ja auch darauf aufmerksam, dass das grönländische Exemplar von der Type Staudingers etwas abweicht, und im neuen Catalog wird ja demnach als Patria für *islandicus* nur „Isl.“ angegeben.

Nach der Beschreibung von *Mim. islandicus* unterscheidet meine *Mengeli* sich in den folgenden Puncten davon.

Flügelexpansion 21 mm. nach meinem Exemplar; Fernald giebt 20 mm. an. Über jedem Auge zieht eine feine weisse Linie; sonst ist

der Augenrand wie der Kopf gefärbt. Die Zunge ist schwarzbraun. Thorax ist anscheinend ein wenig mehr weiss beschuppt als die Flügel gewesen. Abdomen ist ausser mit einem feinen weissen Streifen jederseits an der Basis auch mit einem solchen an der Unterseite versehen; dieser ist jedoch ziemlich undeutlich. Auch an den Hinterbeinen sind die Tarsen heller gefärbt; ebenso sind die Sporen der hinteren Tibien weiss. Auf dem Vorderzipfel finden sich weisse Schuppen auch am Vorderrande, wenn auch sparsamer als am Innerrande. An der Wurzel der Vorderflügel findet sich ein undeutlicher, dunkler Längsstreif. Die Makel vor dem Einschnitt ist ungefähr so gross wie bei *Sten. bipunctidactyla,* aber schärfer markirt und rhomboidisch. Am Ende des hinteren Zipfels kann ich keine dunkle Flecke wahrnehmen. Die Hinterflügel sind ein wenig mehr graugefärbt als diejenigen von *bipunctidactyla.* Auf der Unterseite führt die dritte Feder dieselbe Bestäubung wie die zweite, nicht wie die erste.

Die Verschiedenheiten zwischen *Mengeli* und *islandicus* sind ja nicht gross; die nahe Verwandschaft ist nicht zu läugnen trotz dem fatalen Umstande, dass im neuen Cataloge nicht weniger als 8 Arten zwischen den beiden genannten gestellt werden! Um aber die Beziehungen dieser Formen zu einander näher zu erforschen, wäre mehr Material nothwendig.

Fernald war offenbar die Beschreibung von *Min. islandicus* nicht bekannt, da er als die nächsten Verwandten seiner Art nur ein Paar südlicheren, in den Vereinigten Staaten vorkommenden, Arten angab.

Vorausgesetzt dass der aus Grönland angegebene *Mimaeseoptilus islandicus* Stgr. gleich *Stenoptilia Mengeli* Fern. ist, kommt dieselbe auch in Ostgrönland vor. Die Typen Fernalds wurden bei McCormicks Bay gesammelt.

Pagenstecher führt l. c. *Sten. Mengeli* gar nicht auf.

Raupen.

Als Anhang zu der Bearbeitung der Lepidopteren gebe ich unten Beschreibungen von den gesammelten, in Spiritus conservirten Raupen, trotzdem dass dieselben nicht mit Sicherheit identificirt werden können. Besonders wenn es sich um ein Faunengebiet, das so wenige Arten aufzuweisen hat, handelt, dürfen solche Beschreibungen dennoch nicht als werthlos angesehen werden; man kann ja in diesem Falle wenigstens mit Wahrscheinlichkeit die Raupen bestimmen.

1. *Argynnis chariclea* SCHN.?

Eine *Argynnis*-Raupe, welche mit der Beschreibung AURIVILLIUS's von dem, was er als die Raupe dieser Art ansieht, stimmt, wurde bei Spadenæs (Havnefjorden) 22/7 1900 gefunden.

2. *Agrotis sp.*

Beim Havnen, Havnefjorden wurde 11/6 1900 eine Raupe gefunden, die einer der folgenden Arten angehört: *Agrotis dissona* MÖSCHL., *clandestina* HARR., *quadrangula* ZETT., *Westermanni* STGR. oder *Drewseni* STGR.

Kopf klein, 3 mm. breit, etwas niedergedrückt, dem Umrisse nach ellipsoidisch, breiter als lang, die Seitenhälften wenig gewölbt; Clypeus (Stirndreieck) länger als vorn breit, flach; Scheiteldreieck zweimal so breit als lang, der Quere nach niedergedrückt; Ocellen weit von einander stehend, einen grossen Bogen bildend; Labrum zwei mal so breit als lang, seitlich gerundet, vorn wenig ausgeschnitten. Kopf bräunlich gelb, die Seitenhälften oben und vorn braun marmorirt, an den Seiten des Stirndreieckes ein brauner Streif, der sich nach hinten fortsetzt und eine X-ähnliche Figur bildet; Scheiteldreieck dunkel braun. Der gelbe Stirndreieck mit einer Haarwarze in den beiden vorderen Ecken; zwei gleiche Warzen jederseits der Mittellinie auf der Kopfhöhe. Labrum hellgelb, Vorderrand schwarz; Mandibeln an der Basis bräunlich gelb, in der stark glänzenden äusseren Hälfte röthlich braun. Körper ziemlich dick, von der gewöhnlichen *Agrotis*-Form, ohne besondere Auszeichnungen. Die zwei hinteren Brustsegmenten oben jederseits der Mittellinie mit 2 in einer transversellen Linie, die Segmenten 5—11 mit 2 in longitudinellen, nach hinten divergirenden Linien gestellten kleinen, weissen Haarwarzen. Rücken übrigens mit kurzen Haaren, die nicht aus solchen Warzen entspringen. Körper schmutzig graubraun gefärbt, eine feine, helle, besonders in den Einschnitten deutlich schwarz eingefasste Rückenlinie, jederseits derselben eine breite, schmutzig graugelbliche Binde, die vom dritten bis zwölften Segmente verläuft; die hinteren der Haarwarzen der Mittelsegmenten liegen gerade in der äusseren Grenzlinie dieser Binde. An den mittleren Segmenten bemerkt man zwischen der Rückenbinde und den Stigmen einen sehr verloschenen helleren Schrägstreif, und unter den Stigmen verläuft eine schmale, hellgelbe Binde, die vom Kopfe bis zum Aftersegmente deutlich ist. Die Seiten, sowie Unterseite von den Segmenten 11—12 etwas heller, die Stigmen, Afterschieber, letztes Paar Bauchfüsse, sowie ein grosser Fleck

an der Unterseite von Segment 11 sind schwarz. Sonst die Unterseite sowie die übrigen Füsse gelbbraun; die Klauen und die Spitzen der Gelenkabschnitte der Brustfüsse geschwärzt. Analplatte dunkelbraun.

Eine andere, gleichzeitig gefundene, ein wenig kleinere *Agrotis*-Raupe, die wahrscheinlich derselben Species angehört, weicht in den folgenden Puncten von der beschriebenen ab.

Breite des Kopfes 4 mm., die Seitenhälften stärker gewölbt; Stirndreieck braun, Scheiteldreieck hellgelb, Mandibeln einfarbig gelbbraun, Halsschild mit deutlich weisser Mittellinie. Der schwarze Fleck an der Unterseite von Segment 11 fehlt, ebenso sind die Afterschieber, die letzten Bauchfüsse und die Analplatte bräunlich gelb.

Eine dritte Raupe, die leider wenig gut erhalten ist, aber so weit man sehen kann, in allem mit der letzterwähnten übereinstimmt, wurde an der Südküste von Ellesmere Land 26/8 1899 gefunden.

3. *Geometride sp.*

Bei Moskusfjord (Jones Sound) wurde im Juli 1900 von SIMMONS eine Raupe gefunden, die wahrscheinlieh die bisher ganz unbekannte Raupe von *Lar. Sabinei* sein dürfte. Sowohl M'LACHLAN (l. c.) als VANHÖFFEN (l. c.) erwähnen Geometride-Raupen; sie geben aber keine Beschreibungen davon. Die Raupe VANHÖFFENS wurde auf *Saxifraga aizoon* gefunden, wollte aber in der Gefangenschaft nicht von ihrer vermeintlichen Futterpflanze fressen und war also vielleicht zufällig auf diese gelangt.

Kopf flachgedrückt, abgerundet, viereckig, die grösste Breite grösser als die Entfernung des Vorderrandes des zweiten Segmentes vom Vorderrande des Stirndreieckes; letzteres ziemlich flachgedrückt, ein wenig länger als vorn breit, auch die Seitenhälften des Kopfes wenig gewölbt; Labrum emarginirt, mehr als zweimal so breit als lang. Kopf braunschwarz, an den Seiten hinter den Ocellen 5 rothgelbliche, bogenförmige Flecke, Labrum rothbräunlich; Antennen und Palpen weiss, schwarzgeringt; Labrum vorn weiss, hinter schwarz; die Augen grauweiss. Breite des Kopfes 3 mm. Körper seitlich schwach niedergedrückt, ziemlich robust, gleichförmig gebaut ohne besondere Erhabenheiten oder Auswüchse, jedoch mit weissen Punctwarzen, die je ein schwarzes, ziemlich langes, borstenähnliches Haar tragen. Das zweite Segment ausserdem mit ähnlichen Haaren, die nicht aus Warzen entspringen. Die Segmenten tragen aber folgende Querreihen von Warzen: das 2te, 3te, 4te und 12te Segment je eine Reihe von bezw. 2, 8, 8 und 6

Warzen, die übrigen Segmenten 2 Reihen, wovon die vordere aus 4, die hintere aus 2 Warzen besteht; das letzte Segment ohne Warzen, aber mit Haaren. Unten haben die Segmenten 5—8 je zwei Reihen, die vordere mit 5, die hintere mit 6 Warzen. Ausserdem sind ein oder zwei Warzen neben den Stigmen an jedem Segment vorhanden. Grundfarbe des Körpers bräunlich gelb. In und beiderseits der Mittellinie des Rückens verlaufen drei Reihen von abwechselnden dunkel braunen und hellgelben, viereckigen Flecken und zwar so, dass in den Einschnitten zwischen den Segmenten in der Mitte ein gelber, beiderseits ein brauner Fleck liegt, während auf der Wölbung des Segmentes der braune Fleck in der Mitte, die gelben an dessen Seiten gestellt sind. Segment 2—4 scheint einfarbig dunkler, Aftersegment einfarbig heller gelbbraun gewesen, die hornartige Afterklappe braun. Bauch in der Mitte mit einer hellen Längsbinde. Afterschieber und Bauchfüsse weisslich, Brustfüsse innen an der Basis weisslich, an der Spitze schwärzlich, sonst braungelb.

4. *Microlepidopteron sp.*

Eine Microlepidopter-Raupe wurde von Simmons beim Winterhafen in Rice Strait Juli 1899 gefunden. Das in Spiritus aufbewahrte Exemplar ist geschrumpft und gebogen, ausserdem wahrscheinlich ziemlich entfärbt, so dass die Beschreibung leider nicht so genau als wünschenswerth werden kann.

Kopf klein, ziemlich herzförmig, flach, niedergedrückt, breiter als lang, die Seitenhälften seitlich ein wenig zusammengedrückt; Stirndreieck lang, $1^1/_2$ so lang als vorn breit; Labrum viereckig, in der Spitze ausgeschnitten, vorn in der Mitte tief ausgehöhlt. Die viergliedrigen Antennen fast dreimal so lang als an der Basis breit, in der Spitze mit einem langen und mehreren kurzen Haaren. Kopf bräunlich gelb, die Seitenhälften braun marmorirt, besonders hinten und an den Seiten; Stirndreieck mit 2 kleinen dunklen Puncten an beiden Seiten, die Grenzlinien desselben braun. Scheiteldreieck weisslich, Augenfeld verdunkelt; die Basis der Antennen von schwarz umzogen, dieselben weisslich, das dritte Glied jedoch schwärzlich. Labrum braun, an der Spitze geschwärzt. Breite des Kopfes $1^1/_2$ mm. — Die Segmente nehmen bis zum 7ten an Dicke zu und dann wieder ab, so dass die Gestalt der Raupe spindelförmig erscheint. Zweites Segment breiter als der Kopf, hornartig, seitlich gewölbt, in der Mittellinie deutlich niedergedrückt, mit mehreren langen Haaren, aber ohne sichtbare Warzen. Der Vorderrand des Nackenschildes ist weisslich, sonst ist es braun, mit einer weissen Längs-

binde und einem gelben langgezogenen, in den Enden erweiterten Querfleck, der mit der Längsbinde eine Kreuss- oder T-förmige Figur bildet. Alle Warzen bilden grosse, ellipsoidische, der Quere nach gestellte, dunkelbraune Flecke, die gegen die bräunlichgelbe Grundfarbe deutlich abstecken. Drittes und viertes Segment haben oben eine Querreihe von 4, die übrigen Segmente (das 13te *vielleicht* wie das 3te und 4te) eine vordere Reihe von 4 und eine hintere von 2 solchen Flecken. Die aus den Warzen entspringenden Haare sehr lang. Aftersegment anscheinend kaum oder wenig hornartig und nicht dunkler gefärbt. Die Füsse in den Gelenkenden und die Klauen schwärzlich. Die Stigmen sind schwarz.

Diese Raupe stimmt in mehreren Puncten mit STAUDINGERS Beschreibung (l. c. 1857) von der Raupe von *Plutella senilella* ZETT.; vielleicht zu dieser oder *Pyrausta torvalis* MÖSCHL. angehörend.

Araneae.

Was die Litteratur über *grönländische Spinnen* betrifft, wird man in der vollständigsten Arbeit darüber: „Arachnida Groenlandica“ von WILLIAM SØRENSEN in „Videnskabelige Meddelelser fra den naturhistoriske forening i Kjøbenhavn“, 1898, ein Verzeichniss der einschlägigen Publicationen finden. Ich werde mich daher darauf beschränken bei jeder der zuvor bekannten Arten auf die für die Wiedererkennung derselben wichtigsten Beschreibungen zu verweisen und hier nur auf eine Publication, die von SØRENSEN übersehen worden ist, aufmerksam machen:

1878. THORELL: Notice of the Spiders of the „Polaris“ Expedition. („American Naturalist“, XII.)

Hilaira Sim. 1884.

Hilaira frigida (Th.) 1872.

1872. *Erigone frigida* THORELL: Om några Arachnider från Grönland. („Öfv. af Kgl. svenska Vet.-Akad. Förhandl.“ 1872.)
1891. *Tmeticus niger* F. CAMBRIDGE: Descriptive Notes on some obscure British Spiders with Description of a new Species. („Ann. and Mag. of Nat. Hist.“ 6 S. VII.)
1894. *Oreoneta nigra* CHYZER et KULCZYNSKI: Araneae Hungariae, Pag. 77.
1897. *Erigone frigida* LENZ: Grönländische Spinnen. („Bibliotheca Zoologica“, Heft 20. Lief. 3.)
1898. *Tmeticus frigidus* SØRENSEN l. c. Pag. 197.
1901. *Hilaira frigida* STRAND: Theridiiden aus dem nördlichen Norwegen. („Archiv for Mathem. og Naturvidenskab“. XXIV, No. 2.)

Von dieser Art liegen drei Exemplare vor, die bei Cap Rutherford (Hayes Sd., Ellesmere Ld.) 26/7 1899, Cocked Hat (Kane Basin) 30/7 1899 und Havnefjorden (Jones Sd., Ellesmere Ld.) 13/6 1900 (Simmons) gesammelt wurden.

Ursprünglich nur von Grönland bekannt, hat es sich seither erwiesen, dass die Art auch in Europa vorkommt, und obendrein weit verbreitet ist. So wurde sie 1879 von O. P. CAMBRIDGE[1] aus Skotland und seither aus England, 1894 von CHYZER und KULCZYNSKI[2] aus den Tatra-Gebirgen, 1899 von mir[3] aus Norwegen (woher sie auch SØRENSEN l. c. nach O. P. CAMBRIDGE *in litt.* angiebt) gemeldet. In den arktischen Gegenden ist sie eine der häufigeren Arten, südlicher kommt sie nur in Gebirgen vor[4].

Tarsiphantes Strand n. g.

Tarsiphantes latithorax Strand n. sp.

Diese neue Gattung, deren Type und einzige Art die neue *T. latithorax* STRAND ist, erinnert an *Hylyphantes* durch die langen, gracilen Beine, an *Lophocarenum* durch die lateralen Kopfgrübchen und hat in Habitus auch Aehnlichkeit mit *Bolyphantes*, kann aber mit keiner dieser Gattungen zusammenfallen. Als am meisten auffallende Kennzeichen des Thieres dürfen, ausser den langen Beinen und den Kopfgrübchen, die an Pars femoralis sehr verjüngten Palpen anzusprechen sein.

Die Art wurde am Havnen, Rice Strait, 30/6 1898 entdeckt; ausser einer einzigen adulten Femina wurde ein subadultes Exemplar gefunden, das hieher wahrscheinlich gehört.

Femina. *Cephalothorax* dunkel gelbbraun, schwarz angelaufen, besonders an den Seiten. Der ganz schwarze Seitenrand bildet mit der grauschwarzen Färbung der Seiten eine oben verwischte und unbestimmt begrenzte Längsbinde, die auch über Clypeus zieht; mit dieser hängen die dunklen Seitenfurchen des Brusttheiles zusammen. Die *Augen* sind von breiten schwarzen Ringen umzogen, wodurch die Augenfläche mit Ausnahme des Zwischenraumes der hintern Mittelaugen schwärzlich erscheint; die Ringe um die hinteren Mittelaugen sind keilförmig nach hinten ausgezogen. Von den Seitenaugen zieht nach hinten jederseits

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1 CAMBRIDGE in „Ann. a. Mag. Nat. Hist."; 5 S. VII.

2 CHYZER et KULCZYNSKI l. c. und in „Fauna regni Hungariae, Arachnida". (1896.)

3 STRAND in „Arch. f. Math. og Nat." XXI, No. 6.

4 — : Araneae Hallingdaliae, l. c. XXI.

— : Theridiiden aus dem westlichen Norwegen („Bergens Museums Aarbog" 1902.)

eine schwarze Linie. Diese Linien, die den Rücken des Kopftheiles einschliessen, vorn den Seitengrübchen desselben folgen, am Ende derselben ein wenig eingebogen und dann wieder auswärts gekrümmt sind, stiessen in der Mittellinie zusammen. Letztere beginnt als eine schmale, scharf schwarze Linie zwischen den Mittelaugen, verbreitet sich schwach nach hinten, fliesst mit der verdunkelten Seitengrübchen zwischen Pars cephalica und P. thoracica zusammen und erweitert sich in der Rückengrube zu einem unbestimmt begrenzten, schwärzlichen Fleck. Die *Mandibeln* braungelb, an der Basis am hellsten, innen am dunkelsten, Lippe und Maxillen etwas dunkler, die letzteren in der Spitze weisslich. *Sternum* schwarzbraun, mit zahlreichen kleinen, helleren Puncten bestreut und mit schwarzem Seitenrand. *Palpen* und *Beine* gelb, schwach bräunlich; erstere gegen die Spitze ein wenig verdunkelt; letztere in den Spitzen der Glieder, besonders an der Unterseite, mit einer schwarzen Linie. *Abdomen* schwarz, die Spinnwarzen grau.

Cephalothorax 0,8 mm. lang, 0,7 mm. breit. (Abdomen hat dieselbe Länge, ist aber etwas korrugirt, so dass es an frischen Exemplaren wohl etwas grösser wäre.) Die grösste Breite von Cephalothorax am zweiten Fusspaare, von da nach vorn allmählig schwach verschmälert, an der Insertion der Palpen kaum eingeschwungen. Clypeus dem Umrisse nach breit, stumpf, schwach gerundet, Cephalothorax von hinten nach vorn sänft schräg ansteigend, von der Seite gesehen ohne deutliche Impression in Pars cephalica übergehend; dieselbe der Länge nach schwach gewölbt, der Höhepunct ein wenig hinter den Augen, dieselben jedoch fast unmerklich überragend, hinter den Augen schwach, fast unmerklich, der Quere nach niedergedrückt; die Augenfläche ziemlich schräg nach vorn abgedacht, in der Mitte der Quere nach gewölbt. Hinter den Lateralaugen jederseits eine länglich-ovale, seichte, aber deutliche Grube, deren Länge ungefähr gleich der doppelten Entfernung zwischen den hinteren Mittelaugen ist. Pars cephalica von Pars thoracica durch breite und tiefe Seitengrübchen getrennt, auch die Seitenfurchen des Brusttheiles deutlich. Cephalothorax oben, besonders am Kopftheile, schwach glänzend, fein reticulirt, an den Seiten des Brusttheiles gröber reticulirt, etwas runzelig und matt. — Die hintere *Augen*reihe fast gerade, vielleicht die Seitenaugen ein wenig länger nach vorn gezogen; die Augen gleich gross, die Mittelaugen von sich um ihren doppelten, von den Seitenaugen um ihren einfachen Durchmesser entfernt. Die vordere Reihe durch Tieferstehen der Seitenaugen ein wenig gebogen; die Mittelaugen von sich kaum um ihren Durchmesser, von den Seitenaugen um ein wenig mehr als den Durchmesser entfernt. Die vorderen Mittelaugen

sind sehr klein, die vorderen Seitenaugen die grössten aller Augen. Das Feld der Mittelaugen kaum länger als hinten breit, hinten beinahe zweimal so breit als vorn. Die Seitenaugen an einem gemeinschaftlichen Hügelchen, einander berührend. *Clypeus* so hoch als das Feld der Mittelaugen lang, fein reticulirt, etwas glänzend, unter den Augen eingedrückt, gegen den Rand wieder hervorstehend; letzterer ragt deutlich über der Basis der Mandibeln hervor. *Mandibeln* ungefähr zweimal so lang als Clypeus hoch, kaum länger als an der Basis breit, fein quergestreift, nach hinten gedrückt, auch an der Basis kaum gewölbt, innen gegen die Spitze schwach gerundet-verschmälert; am Falzrande vor der Klaue sitzen gegen die Spitze derselben drei starke Zähne und unweit derselben ein Paar borstenartige Haare. *Sternum* wenig länger als breit, herzförmig, zwischen den Hüften des vierten Paares verlängert und daselbst so breit als die vierte Hüfte lang, stark gewölbt, die Spitze nach oben gebogen, wenig glänzend, fein reticulirt, am Rande mit deutlichen Eindrücken und stärkerer Reticulation, überall sparsam mit kleinen Haargrübchen, aus welchen weissliche, gerade emporgerichtete Haare entspringen. Die *Palpen* zeichnen sich durch das *sehr verjüngte Femoralglied* aus. Dasselbe ist von oben gesehen an der Basis ziemlich breit, wird aber in und ausserhalb der Mitte so stark seitlich komprimirt, dass die Breite derselben von oben gesehen nicht die Hälfte derjenigen des Patellargliedes ist. An der Spitze erweitert sich das Femoralglied wieder ein wenig, bleibt aber dennoch schmäler daselbst als an der Basis. Oben hat es ein wenig vor der Mitte ein grösseres, nach vorn gerichtetes Haar. Pars patellaris so lang als an der Spitze breit, daselbst mit einer Borste, die länger als der Durchmesser des Gliedes ist. Pars tibialis ein wenig schmäler als die Spitze von Pars patellaris, zweimal so lang als breit und an der Spitze mit einer Borste, die dem Durchmesser des Gliedes gleichkommt. Pars tarsalis an der Basis kaum merklich dicker als Pars tibialis und ungefähr so lang als dieselbe; gegen die Spitze ist es stark verschmälert. — *Beine* sehr lang und dünn, sparsam behaart und bestachelt; die Stacheln jedoch vielleicht abgebrochen, indem die Beine nicht gut erhalten sind, und Glieder derselben ganz fehlen. Die Längenverhältnisse anscheinend 4, 1, 2, 3. An den Metatarsen kann ich keine Hörhaare finden, ebenso fehlen alle Stacheln dem vierten Beinpaare. An den Tibien der drei ersten Paare findet sich ein Stachel oben in der Basalhälfte (ungefähr bei $^1/_3$), ebenso tragen die Patellen je einen Stachel. Die Stacheln sind kaum länger als der Durchmesser der betreffenden Glieder. Alle Metatarsen und Femora unbewehrt. Die Tarsen so lang als die Metatarsen am

I. Paare, kürzer als die Metatarsen am IV. Paare; alle Tarsen ein wenig dünner als die Metatarsen und cylinderförmig. Die Krallen sehr klein gezähnt. — *Abdomen* kurz behaart. *Epigyne* bildet eine Erhöhung, die breiter als lang und hinten breit abgerundet ist; der hintere, etwas emporgerichtete Theil ist gelbbraun, glänzend, wird aber zum Theil von längeren, an der Basis stehenden Haaren überragt. Die Erhöhung, die etwas halbmondförmig ist, hat in der Mitte eine Grube, die ein wenig breiter als lang ist. Diese wird von zwei der Länge nach gehenden parallelen Furchen, die aussen von einer erhabenen Costa begrenzt sind, gebildet; zwischen dem Vorderrande der Furchen geht eine dritte, gebogene, Costa, die in der Mitte zungenförmig nach hinten, bis in die Mitte der Grube, sich verlängert. Hinter dieser zungenförmigen Verlängerung ist die Grube in der Mitte schwach erhöht, gewölbt. In einer gewissen Richtung und trocken gesehen hat Epigyne Aehnlichkeit mit einem nach vorn offenen Hufeisen. Sie ähnelt übrigens derjenigen von *Linyphia tomskica Strand* (concinna L. Kch.) [Vide L. Koch: Arachniden aus Sibirien und Nowaja-Semlja, Taf. I, Fig. 26 in „Kgl. svenska Vet.-Akad. Handl.“ XVI (1879) und Strand: Arachnologisches in „Nyt Magazin for Naturvidenskaberne“, 38 (1900)], unterscheidet sich aber besonders dadurch, dass die Grube an den Seiten mit tieferen, parallelen, bis zu den Hinterrand verlaufenden Furchen versehen ist, und dass die Costen, welche die Grube begrenzen, schärfer sind als (nach Kochs Figur) bei *tomskica.*

Erigonella Dahl 1901[1].

Erigonella groenlandica Strand n. sp.

Bei Fort Juliane (Hayes Sd.) wurde am 7/7 1899 ein subadultes Weibchen gefunden, das dieser Gattung beizuzählen und von den bisher bekannten Arten derselben verschieden ist.

Körperlänge 2 mm.; Cephalothorax 1 mm., Abdomen 1,1 mm. Farbe des ganzen Thiers schwärzlich; Cephalothorax schwarz, in der Mitte schwach gelblich; Abdomen grauschwarz. Mandibeln vorn und aussen schwärzlich, an der Basis und an der Innerseite gelblich, die Klauen rothbraun. Beine schwärzlich mit gelbbräunlichem Anfluge. Palpen unrein gelb, in der Basalhälfte schwärzlich angeflogen.

Cephalothorax fein reticulirt, am Kopftheile stark glänzend, der Brusttheil gegen den Rand hin runzelig mit deutlichen Seitenimpres-

[1] Dahl: Ueber die Seltenheit gewisser Spinnenarten („Sitzungs-Bericht der Gesellschaft naturforschender Freunde zu Berlin“, Nr. 10 (1901)).

sionen; von hinten her sanft ansteigend, zwischen dem Brusttheile und dem Kopftheile oben schwach, an den Seiten stark niedergedrückt. Der Kopftheil ziemlich hoch gewölbt, hinter den Augen schräg flachgedrückt nach vorn abfallend, die grösste Höhe desselben weiter hinter den Augen als die Entfernung der vorderen und hinteren Mittelaugen. Cephalothorax vorn wenig verschmälert, Stirn ziemlich breit und stumpf. In der Mittellinie stehen hinter der Kopfhöhe zwei schwarze schräg vorüber gerichtete Haare und ein ähnliches gerade auf dem höchsten Puncte des Kopftheiles. — Das *Augenfeld* ist zwischen den Mittelaugen schwach niedergedrückt, querrunzelig. Die hintere Augenreihe gebogen, so dass eine die Mittelaugen vorn tangirende Linie die Seitenaugen hinten berühren würde; die Mittelaugen von einander in ihrem Durchmesser, von den Seitenaugen ein wenig mehr entfernt; die letzteren kaum grösser. Die vordere Augenreihe durch Tieferstehen der Seitenaugen ein wenig gebogen; die Mittelaugen die kleinsten, die Seitenaugen die grössten aller Augen; die Mittelaugen unter sich in ihrem Durchmesser, von den Seitenaugen in $1^1/_2$ ihres Durchmessers entfernt. Das Feld der Mittelaugen länger als hinten breit. — *Clypeus* senkrecht abfallend, unter den Augen schwach eingedrückt, sehr fein quergestreift, wenig höher als das Feld der Mittelaugen lang. — *Mandibeln* stark nach hinten gedrückt und divergirend, an der Basis sowie aussen kaum gewölbt, gegen die Spitze stark verjüngt, $1^1/_3$ so lang als an der Basis breit, glatt, glänzend. *Sternum* mit feinen Punctgrübchen, runzelig, dennoch ein wenig glänzend, breit herzförmig, gewölbt, an der Spitze stark aufgebogen. Die *Palpen* ohne Auszeichnung. — Die *Beine* kurz und sparsam behart. Das Hörhaar des ersten Metatarsus in der Mitte. Die stachelähnlichen Haaren so lang oder kaum so lang als der Durchmesser der betreffenden Glieder. Klauen sehr fein gezähnt. — *Abdomen* länglich eiförmig, sparsam behaart und mit feinen Punctgrübchen besetzt.

Brachycentrum Dahl 1886.

Brachycentrum simile (Sørensen) 1898.

1898. *Walckenaëra similis* Sørensen l. c.

Beim Havnen, Havnefjorden wurde $^{18}/_6$ 1900 eine ♀ ad. gefunden, die ich mit dieser Art identificirt habe. Die Beschreibung Sørensens stimmt aber in zwei Puncten (abgesehen davon, dass das Thier keine *Walckenaera (Bl.) (Kulcz.)*, sondern ein *Brachycentrum* ist) nicht ganz: Die hinteren Mittelaugen sind bei meinem Exemplare nicht mehr von einander als von den Seitenaugen entfernt, und Stacheln an den

Tibien kann ich nicht entdecken, wohl aber Trichobothrien (ausser gewöhnlichen Haaren). Diese zwei Abweichungen können jedoch nicht hinreichen, um eine neue Art aufzustellen; wissen wir ja, dass die Stellung der Augen ein wenig variiren kann, und die Stacheln vielfach leicht abgebrochen werden.

Von Trichobothrien finden sich an den drei vorderen Tibien eines in der Mitte, an den Tibien des vierten Paares eines in der Mitte und eines nahe der Spitze, an den vierten Metatarsen kein, an den anderen Metatarsen ein Trichobothrium, das gleich weit von der Mitte und der Spitze des Gliedes steht. Die Krallen nicht lang gezähnt, wie es bei *Walckenaëra* s. str. der Fall ist. Cephalothorax ist mit Punctreihen versehen, dieselben sind jedoch undeutlich. Das Endglied der Palpen ist dicht mit langen und starken Borsten besetzt. Am vorderen Falzrande der Mandibelklaue 4 Zähnchen, am hinteren keine(?).

Erigone Aud. 1825—27.

Erigone psychrophila Th. 1871.

1871.	*Erigone psychrophila*	THORELL: Om Arachnider från Spetsbergen och Beeren-Eiland. („Öfv. af Kgl. svenska Vet.-Akad. Förhandl.“ 1871.)
1877.	— » —	O. P. CAMBRIDGE: On some new and little-known Spiders from the Arctic Regions (Ann. and Mag. of Nat. Hist.“ 4 S. v. XX.)
1879.	— » —	L. KOCH l. c.

Von dieser Art liegen 4 Exemplare vor, die folgender Weise etiquettirt sind: Rice Strait 8/6 1899 (♀) und 30/6 1899 (♀); Gaasefjord 6/6 1902 (♂); Gaasefjorden 20/6 1902 (♀).

Diese Art ist weit verbreitet, aber nach den bisherigen Angaben nicht von den häufigsten Arten Grönlands. SØRENSEN giebt sie von Cap Stewart und Hold with hope an, CAMBRIDGE vom nördlichen Grönland (82° 33′), THORELL in „Spiders of the „Polaris“ Exped.“ von Polaris Bay und l. c. 1871 von Spitzbergen, L. KOCH von Nowaja-Semlja und Jenisei. Auf den Commander Islands, wo viel gesammelt wurde, scheint sie zu fehlen[1].

[1] Reports of the Insects, Spiders, Mites and Myriopods collected on the Commander Islands. Arachnida by BANKS. („The Fur-Seals and Fur-Seal Islands of the North Pacific Ocean“, Part IV.)

Erigone Whymperi O. P. Cbr. 1877.

1877. *Erigone Whymperi* O. P. Cambridge l. c.
1898. —»— Sørensen l. c.

Von dieser, die nach Sørensen die häufigste *Erigone*-Art Grönlands ist, wurden nur 2 Stück gesammelt, die als 30/7 1900, Havnen, Havnefjorden und 15/6 1901 Ende Gaasefjordens (Simmons) etiquettirt sind. Beide adulte Weibchen.

Die Exemplare stimmen mit der Beschreibung Sørensens in Betreff der Epigyne, aber nicht der Augen. Die Mittelaugen sind nämlich deutlich mehr von den Seitenaugen als von einander entfernt, was aber auch nach Cambridge der Fall sein soll. Er schreibt ja: „each [of the two central eyes of the front row] is separated from the lateral eye on its side by an interval about equal to that, which divides the two hind central eyes. The four central eyes form very nearly a square, the fore side being the shortest.“ Über die Augenstellung des Männchens kann ich aber nichts sagen, da dasselbe mir unbekannt ist.

Erigone sp. (specimen monstrosum).

Bei Rice Strait 3/8 1899 wurde ein eigenthümlich gebildetes, subadultes Männchen einer *Erigone*-Art (*Erigone s. str.*) gefunden, das wohl als eine Monstrosität anzusehen ist. Der Vorderrand von Clypeus ist als eine horizontale Platte nach vorn verlängert; dieselbe bildet ein Trapezium mit schwach gerundeten Ecken, ist an der Spitze schmäler als an der Basis und breiter als lang. Ueber den Vorderrrand des Cephalothorax zieht eine erhöhte Falte, die zwischen den Augenreihen und von da beiderseits rückwärts verläuft. Der Kopftheil ist niedergedrückt, so dass er kaum höher als der Brusttheil ist. Die Mandibeln, die an der Vorderseite nicht gewölbt, sondern fast ausgehöhlt sind, stark nach hinten gedrückt.

Diese Missbildung lässt sich wohl so erklären, dass das Thier am Vorderende des Kopfes einen Druck gelitten hat, der die Mandibeln rückwärts und nach oben, Clypeus herab und vorwärts, gepresst hat.

Da die Genitalien nicht ausgebildet sind, kann die Art nicht sicher bestimmt werden.

Thanatus C. L. Koch 1837.

Thanatus arcticus Th. 1872.

1872. *Thanatus arcticus* Thorell l. c.
1897. —»— Lenz l. c.
1898. —»— Sørensen l. c.

Ein einziges, subadultes Individuum (♀) liegt vor: Godhavn 30/7 1899. — Nur aus Grönland bekannt.

Lycosa (Latr.) (Th.) 1804.

Lycosa glacialis Th. 1872.

1872. *Lycosa glacialis* THORELL l. c.
1874. *Pardosa aquilonaris* L. KOCH: Arachniden (in „Zweite deutsche Nordpolfahrt in den Jahren 1869 und 1870." II).
1877. *Lycosa glacialis* O. P. CAMBRIDGE l. c.
1898. —»— SØRENSEN l. c.

Diese Art scheint an den untersuchten Lokalitäten häufig gewesen, indem viele Exemplare vorliegen. Dieselben wurden gesammelt: Godhavn 30/7 1898, Beistadfjordan 9/6 1899 (SIMMONS), Fort Juliane 7/7 1899, Cap Rutherford 26/7 1899, Havnefjorden 8/6 1900, 17/6 1900 und Moskusfjorden (Jones Sd., Ellesmere Ld.) 5/7 1900.

Junge Individuen zeichnen sich durch deutlich annulirte Extremitäten aus. Hinter der Dorsalbinde Abdomens stehen zwei hinten konvergirende Reihen von ovalen, schräg gestellten, röthlichen Flecken, die an adulten Exemplaren gewöhnlich ganz fehlen oder wenigstens undeutlich sind.

Kommt nur in Grönland und den Polarländern Amerikas vor.

Manuscript September 1903 vorgelegt, gedruckt Januar 1905.

REPORT OF THE SECOND NORWEGIAN ARCTIC EXPEDITION
IN THE "FRAM" 1898—1902. No. 4.

H. MOHN:

METEOROLOGY

AT THE EXPENCE OF THE FRIDTJOF NANSEN FUND
FOR THE ADVANCEMENT OF SCIENCE

PUBLISHED BY

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In preparing the present Memoir I have had the assistance of Miss Louise Mohn, who reduced the main part of the observations and worked up the Tables, and of Mr. Aa. Graarud, First Meteorologist in the Norwegian Meteorological Institute, who made the harmonic-analysis computations and prepared Tables from the observations made on board the 'Fram' under way. Capts. Sverdrup, Isachsen and Baumann have furnished me with valuable remarks regarding the circumstances under which the observations were made. Miss J. Muir has revised my English manuscript.

The proofs have been read by Miss Mohn, Mr. Graarud and Miss Muir.

The places named in the Memoir the reader will find in the maps accompanying Capt. Isachsen's Memoir "Astronomical and Geodetical Observations" published in the Report of the Second Norwegian Arctic Expedition in the 'Fram' 1898—1902, No. 5, Vol. II, and in Capt. Sverdrup's Narrative of the voyage in his book "Nyt Land".

April 1907.

H. Mohn.

CONTENTS.

INTRODUCTION.

When organizing his Expedition with the Fram, Capt. Otto Sverdrup requested me to purchase the instruments for the meteorological observations, and some instruments for other purposes included in the scheme proposed for the Expedition. During the spring of 1898 the instruments were collected and examined at the Meteorological Institute in Kristiania.

The Fram left Norway with the following instruments on board:

2 Kew-Station barometers
1 Marine barometer
2 Pocket aneroid barometers
2 Richard barographs
2 Richard thermographs
23 Mercury psychrometer thermometers
27 Mercury sling-thermometers
25 Toluol sling-thermometers
6 Toluol standard thermometers
6 Minimum spirit thermometers
6 Maximum mercury thermometers
2 Mercury thermometers with sling mechanism
2 Hair hygrometers
1 Thermometer-screen
1 Thermometer comparing apparatus
2 Hand anemometers
4 Nephoscopes
1 Rain-gauge with measuring-glass
1 Snow-gauge
6 Deep-sea thermometers
4 Boiling-point thermometers
4 Earth thermometers.

The physician of the Expedition, Dr. JOHAN SVENDSEN, took part in the examination and comparing of the instruments with the standards, before the starting of the Expedition, and made himself thoroughly familiar with their use in every respect.

The death of the doctor in June, 1899, put a lamentable period to his work as chief Meteorologist of the Expedition.

The Fram left Kristiania on the 24th June, 1898, called at Egedesminde in Greenland on the 29th of July, left Godhavn on the 2nd of August, and Upernivik on the 5th of August. On the 15th and 16th the Fram was at Foulkefjord, on the 17th at Cocked Hat, and the 18th and 19th at Rice Strait. At the northern inlet of this strait, the Expedition wintered from September, 1898, to the 23rd of July, 1899.

On the 1st of September, 1899, the Fram reached the second winter-station (Havnefjord), which she left on the 9th of August, 1900.

On the 18th of September the Fram was anchored at her third wintering station at the head of the Gaasefjord. She left it on the 12th of August, 1901, and arrived at the fourth and last wintering station in the Gaasefjord, a little farther from the head of the fjord, on the 5th of September in the same year.

On the 21st of July, 1902, the Fram left this place.

On the 17th of August the Fram dropped anchor at Godhavn. Left Godhavn the 20th. Passed Fair Hill on the 17th of September, and reached Norway on the 19th of September, 1902.

The meteorological observations on board the Fram during the years 1898 to 1902 were made in somewhat different ways according as the ship was under way or stationed at the different winter-quarters. As the latter constitute the majority, I shall first treat of them.

PART I.

OBSERVATIONS AT THE WINTER QUARTERS.

The names of the winter quarters, their latitude and longitude, and the period of time during which the observations were made, bi-hourly, mean local time, are as follows:

Place	Latitude	Longitude	Stay
Rice Strait . .	78° 45.7′ N.	74° 56.5′ W.	1898, Sept. 19 to 1899, July 24.
Havnefjord . .	76 29.4	84 3.7	1899, Oct. 23 - 1900, Aug. 9.
Gaasefjord I .	76 48.9	88 39.5	1900, Sept. 18 - 1901, Aug. 12.
Gaasefjord II .	76 39.8	88 38.3	1901, Sept. 6* - 1902, July 21.
Mean	77 11.0	84 4.5	*1901, Aug. 13 to Sept. 5 in the Gaasefjord.

ATMOSPHERIC PRESSURE.

The Barometer used in all the winter quarters was the Kew station barometer Adie No. 850. It was compared with the standard barometer of the Norwegian Meteorological Institute at Kristiania before starting and after the return of the Expedition. The constant correction to the true height of the barometer was found

in 1898 to be	— 0.042	millimetre;	M. E. =	± 0.13 mm.
- 1903 - -	— 0.032	—»—	„ „	± 0.08 „
Mean	— 0.037	—»—		± 0.10 „

M. E. is the mean error of a single comparison.

The observations did not show any appreciable variation of the error with pressure. The observations have been reduced with a *constant correction* of — 0.04 mm.

The barometer was suspended in the fore cabin with its cistern 2.8 metres above sea-level.

The *reduction to sea-level* becomes	+ 0.285 mm.
Constant correction	— 0.037 „
Total correction	+ 0.248 „

From March 20 to April 20, 1900, the barometer was suspended in the aft cabin, at a lower level, the corresponding reduction to sea-level being 0.2 mm. less than that given above.

The reduction to standard gravity has been computed by the formula

$$\text{Gravity correction} = b\,(-0.00264 \cos 2\varphi),$$

b being the height of the mercury, and φ the latitude.

For 1898—1899 I have taken the gravity correction

$$+\ 1.86\ \frac{b}{760}\ \text{mm.},$$

and for the last 3 places

$$+\ 1.79\ \frac{b}{760}\ \text{mm.}$$

The observations given in the following tables have been reduced to 0° C., to the standard barometer (true barometric height), to sea-level, and to standard gravity ($\varphi = 45°$, sea-level)[1].

At the head of the Tables is the year, the month, the name of the winter station, the latitude φ, the longitude λ, and the amount of the gravity correction GC.

During the stay of the Expedition in winter quarters a barograph Richard was kept going. The very few omissions of observations of the barometer in the observation-journal have been filled in by means of the barograph curves. These are printed in italics.

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[1] As a spare barometer, the Expedition had the Kew station barometer Adie No. C. 763, the same that was used on the Fram's Expedition of 1893—96. This instrument came back in an unserviceable state, its mercury having been taken out to be used for an artificial horizon for sextant observations. Happily the barometer Adie No. 850, with which the observations on board were made during the whole stay at the winter stations, remained in good order, and came back unchanged, as the comparisons in 1903 have shown.

PRESSURE.

1898. September.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
19				55.5	55.6	57.1	62.6	62.4	62.3	61.7	60.0	59.3	59.6
20	57.3	58.1	59.4	60.7	61.2	61.5	62.2	63.0	63.1	63.5	63.4	63.3	61.4
21	58.6	58.0	57.7	57.6	57.6	57.7	57.8	58.2	58.6	59.1	59.3	59.4	58.3
22	59.6	59.7	59.8	59.8	59.6	59.6	59.5	59.2	59.4	59.6	59.8	61.0	59.7
23	60.5	60.6	61.1	61.4	61.4	61.5	61.2	60.6	59.9	58.6	57.6	55.9	60.0
24	54.0	52.9	52.5	52.1	52.3	53.1	54.6	55.7	56.3	57.0	57.9	57.6	54.7
25	57.4	57.4	57.3	57.2	57.5	57.8	58.2	58.9	59.0	58.6	58.6	58.5	58.0
26	58.0	57.3	57.0	56.6	*56.2*	*57.5*	57.4	59.6	59.9	60.8	62.2	*62.8*	58.9
27	63.3	64.6	65.0	65.6	65.7	65.9	66.3	66.4	66.6	66.3	66.4	66.7	65.7
28	67.3	65.4	67.6	69.1	69.5	69.7	69.8	70.3	70.3	70.2	70.0	69.8	69.1
29	70.0	69.7	68.3	69.0	68.7	67.9	67.8	67.5	67.7	66.6	66.4	66.1	68.0
30	66.1	67.0	65.7	65.1	65.0	64.8	64.4	64.2	63.7	63.6	63.0	62.4	64.6
Mean*	61.10	60.97	61.04	61.29	61.40	61.52	61.75	62.15	62.23	62.17	62.24	62.17	61.67

* 20th to 30th.

1898. October.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	62.5	62.3	62.1	61.6	61.3	60.8	60.3	60.5	60.1	59.7	59.2	58.6	60.5
2	58.4	58.2	58.1	58.1	58.0	57.8	57.7	58.0	57.8	57.8	57.4	57.0	57.9
3	56.9	56.8	56.8	56.2	55.8	55.1	54.5	53.7	53.2	52.3	51.3	50.5	54.4
4	49.9	49.5	49.5	49.3	49.7	49.6	50.1	50.7	51.3	51.9	52.0	52.5	50.5
5	52.4	52.0	52.1	51.8	51.1	50.6	50.5	50.8	51.8	52.7	53.0	53.8	52.2
6	54.0	54.4	55.0	55.2	54.7	53.9	53.2	52.5	52.2	50.6	50.9	50.8	53.1
7	50.6	51.1	51.7	52.4	53.3	53.6	53.9	54.5	54.9	54.4	53.6	54.1	53.2
8	52.5	53.4	52.9	53.5	53.9	54.2	55.7	56.2	56.9	57.2	57.3	57.1	55.1
9	57.1	56.8	56.7	56.7	57.2	57.7	57.4	57.6	57.8	57.5	57.0	56.8	57.2
10	57.6	58.0	58.8	59.5	60.4	60.8	61.1	61.1	61.1	60.7	60.0	58.7	59.8
11	58.6	58.5	57.9	57.4	57.9	58.3	58.8	59.6	59.9	60.1	59.7	58.9	58.8
12	59.9	58.7	58.1	59.6	59.9	60.6	61.4	61.7	61.4	61.6	60.9	60.6	60.4
13	60.2	59.8	59.0	57.9	56.5	55.6	55.3	54.4	53.5	53.3	53.1	53.7	56.0
14	53.8	54.1	55.4	56.4	56.9	58.0	59.8	62.1	61.0	62.2	63.1	63.8	58.9
15	64.0	64.1	63.3	63.3	63.1	63.6	63.7	64.5	66.0	67.2	67.2	67.6	64.8
16	67.8	69.1	70.1	69.9	70.6	70.7	71.1	71.3	71.6	71.8	71.8	72.1	70.7
17	72.0	73.0	73.8	74.3	74.6	75.0	75.6	76.6	76.5	76.6	76.5	76.2	75.1
18	76.3	76.3	76.2	75.8	75.6	75.1	74.7	74.4	74.0	73.4	72.8	72.0	74.7
19	71.8	71.1	70.7	70.5	69.9	69.5	68.6	68.2	68.1	67.4	66.9	66.4	69.1
20	66.0	66.0	66.1	66.1	66.3	66.0	65.6	65.6	65.9	65.9	65.0	64.6	65.8
21	64.0	63.8	63.2	62.8	62.3	62.1	60.9	60.9	60.5	60.2	59.8	59.1	61.6
22	58.8	58.8	58.9	58.4	58.7	59.1	59.1	59.5	60.2	60.8	61.5	62.3	59.7
23	62.6	62.9	63.2	63.9	64.2	64.2	64.0	64.1	64.6	63.4	62.8	62.0	63.5
24	60.5	59.4	58.3	58.2	57.5	56.4	55.4	54.8	54.4	54.0	54.0	54.0	56.4
25	53.5	53.0	54.2	54.3	54.9	55.6	56.5	57.1	57.7	58.1	58.6	59.5	56.1
26	60.3	61.1	61.9	62.7	63.3	63.0	64.6	64.9	65.3	65.4	65.3	65.5	63.6
27	65.6	65.5	65.9	65.7	66.0	66.2	66.4	66.8	66.8	66.7	66.4	66.1	66.2
28	65.9	65.8	65.5	64.1	63.4	62.5	61.7	60.5	59.7	59.1	58.0	57.3	62.0
29	57.0	56.3	56.2	56.8	56.8	57.1	57.6	58.7	59.5	60.3	60.9	61.1	58.2
30	62.1	62.8	63.0	63.8	63.8	63.8	63.9	64.4	64.6	64.4	63.7	63.2	63.6
31	63.0	63.1	63.2	62.3	62.2	61.9	61.6	61.8	61.8	61.6	61.7	61.5	62.2
Mean	60.50	60.51	60.57	60.60	60.64	60.59	60.67	60.89	60.97	60.91	60.69	60.56	60.68

1898. November.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	61.6	61.9	62.5	62.3	62.1	60.8	61.1	61.1	60.9	60.7	60.2	59.6	61.2
2	59.5	59.1	59.3	59.1	59.1	59.2	59.7	60.4	61.2	61.4	61.7	61.3	60.1
3	61.4	61.0	60.9	60.5	59.5	58.3	57.6	57.0	56.7	55.9	55.5	55.5	58.3
4	55.5	56.1	56.4	57.3	58.0	58.8	59.7	60.8	61.3	61.8	62.1	62.3	50.8
5	62.5	63.2	63.1	64.1	64.5	64.5	65.1	66.0	66.4	66.7	66.9	67.1	65.0
6	66.9	66.5	65.6	66.1	65.3	64.6	64.0	63.6	63.1	62.8	62.5	63.0	64.5
7	61.5	61.8	61.0	60.7	60.2	60.1	59.3	58.8	57.5	56.1	53.9	52.0	58.6
8	50.0	47.6	45.8	43.9	43.1	42.7	43.5	44.6	44.5	46.6	47.8	48.4	45.7
9	49.1	50.8	51.2	51.5	52.1	52.5	53.0	53.3	54.0	54.1	54.4	54.8	52.6
10	55.3	56.1	56.2	57.0	57.3	57.5	57.6	57.9	57.3	56.9	56.5	56.6	56.9
11	56.5	56.4	56.7	57.1	57.6	58.6	60.0	60.8	61.5	61.6	62.1	62.2	59.3
12	62.6	62.6	62.2	61.2	61.1	60.1	59.8	59.3	58.3	56.6	55.7	54.5	59.5
13	54.5	54.6	54.7	53.1	52.2	50.8	51.5	51.0	50.2	49.5	48.6	47.3	51.5
14	46.4	45.3	45.1	44.8	44.2	43.9	43.6	43.9	44.2	43.9	44.1	44.0	44.5
15	44.2	44.6	45.2	45.2	47.0	47.7	48.8	49.7	50.3	50.8	51.0	51.5	48.0
16	51.0	51.6	51.3	51.6	51.2	51.1	51.0	51.6	52.0	52.6	52.8	52.7	51.7
17	53.6	54.7	55.9	56.1	56.6	56.8	57.2	57.5	58.6	59.2	59.7	60.0	57.2
18	60.7	62.1	62.5	63.2	63.4	63.5	64.5	65.1	65.6	65.8	66.1	66.2	64.1
19	67.4	66.6	66.3	68.0	68.2	68.9	69.5	69.5	71.1	71.6	71.9	72.1	69.3
20	72.3	72.7	73.0	73.1	73.3	73.4	73.4	73.4	73.4	73.0	72.8	72.6	73.0
21	72.1	72.0	71.3	70.9	70.8	70.6	70.2	69.8	69.3	69.0	69.0	68.6	70.3
22	68.2	68.4	68.1	67.5	67.2	66.0	64.2	62.8	60.3	57.3	56.2	55.5	63.5
23	55.4	55.5	56.5	58.8	62.3	64.0	65.7	67.4	69.8	71.2	72.4	73.8	64.4
24	73.6	74.6	74.4	73.7	73.0	71.1	69.4	68.0	67.8	63.8	62.1	60.7	69.4
25	59.8	58.5	59.0	56.9	57.2	57.9	59.4	61.1	61.2	62.7	63.5	64.8	60.2
26	65.7	66.4	66.7	67.7	68.2	68.8	69.3	69.4	69.5	69.0	67.7	66.6	67.9
27	65.7	64.7	62.9	61.7	59.7	57.8	57.0	55.5	53.7	51.9	50.4	49.4	57.5
28	48.7	48.8	48.9	48.9	49.4	50.2	51.1	52.6	54.2	55.8	57.1	58.3	52.0
29	60.0	61.3	62.1	62.8	63.5	64.1	65.0	66.3	67.2	67.9	68.8	70.1	64.9
30	71.4	72.6	73.8	74.6	76.0	76.9	78.1	78.8	79.6	80.1	80.4	80.6	76.9
Mean	59.77	59.94	59.95	59.98	60.11	60.04	60.31	60.57	60.69	60.54	60.46	60.40	60.23

1898. December.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	81.0	81.4	81.8	81.6	81.5	81.4	81.8	82.0	82.2	82.6	82.4	82.2	81.8
2	82.0	82.4	82.5	82.3	81.9	80.8	80.3	80.4	79.9	79.1	78.5	77.4	80.6
3	76.8	76.3	76.2	74.7	74.8	74.4	74.2	74.1	74.0	74.2	73.7	73.4	74.7
4	73.6	73.5	73.5	73.8	73.6	73.4	73.1	73.0	72.8	72.7	72.6	72.4	73.2
5	72.1	72.2	71.7	71.6	71.0	70.2	70.3	70.3	70.4	70.3	70.4	70.5	70.9
6	70.4	71.0	71.3	71.5	72.5	72.4	73.0	73.3	73.9	73.9	74.8	74.2	72.7
7	75.0	74.1	73.4	73.3	72.6	71.8	71.0	69.9	68.7	67.5	65.5	63.5	70.5
8	61.8	59.5	57.9	56.0	54.4	53.0	51.0	51.2	50.0	49.3	49.1	48.7	53.5
9	48.6	48.3	48.3	48.2	48.7	48.8	49.0	49.6	49.9	50.1	50.2	50.9	49.2
10	51.5	51.5	51.1	50.4	49.5	49.7	51.7	53.1	54.9	55.4	56.1	56.0	52.6
11	57.4	58.0	58.3	58.9	59.5	59.7	60.4	61.2	61.7	62.0	62.3	62.5	60.2
12	63.6	64.2	64.1	64.3	64.7	64.8	64.9	64.8	65.0	64.6	63.8	63.3	64.3
13	63.0	61.4	62.2	61.5	61.2	60.9	61.3	61.8	62.5	62.6	62.8	63.0	62.0
14	62.8	63.8	64.5	63.0	62.4	62.1	61.8	61.7	61.5	60.2	59.2	57.6	61.7
15	56.7	55.4	54.1	52.4	50.0	47.9	47.0	45.4	45.0	43.9	42.9	42.3	48.6
16	42.9	43.6	45.5	45.3	46.0	45.9	46.4	46.9	47.5	47.9	48.2	49.0	46.3
17	49.8	51.9	52.8	53.4	54.6	55.3	55.9	57.1	57.3	57.8	58.0	57.6	55.1
18	57.5	58.3	58.2	58.2	58.2	57.7	57.6	57.6	57.4	57.1	57.2	57.2	57.7
19	57.4	57.0	56.5	56.0	56.0	55.7	54.9	55.8	56.0	56.1	56.6	57.5	56.3
20	57.4	57.7	57.4	57.4	57.8	57.5	56.8	56.6	55.9	55.5	54.9	54.3	56.6
21	53.7	53.7	53.4	54.0	54.7	54.2	54.1	54.5	55.1	55.2	55.4	55.6	54.5
22	53.9	56.1	55.8	55.2	54.9	54.4	54.0	54.1	53.9	54.1	54.5	54.8	54.6
23	55.2	55.3	55.4	55.6	55.7	56.1	56.7	57.1	57.1	57.1	57.2	56.9	56.3
24	56.6	56.7	56.3	56.2	55.9	55.8	55.4	55.2	54.7	54.0	53.2	52.9	55.2
25	52.6	52.4	52.0	50.8	50.2	49.6	49.7	50.0	50.0	49.9	50.4	50.7	50.7
26	50.8	51.0	51.0	50.8	50.6	50.8	51.2	51.3	51.1	51.2	51.5	51.3	51.1
27	51.2	51.2	51.3	51.4	52.1	52.1	53.1	53.6	54.1	54.3	54.1	54.2	52.7
28	54.4	53.8	54.1	53.8	53.3	53.0	52.9	53.0	52.8	53.1	54.0	54.5	53.6
29	55.8	56.9	58.2	58.9	59.7	60.5	60.9	61.5	61.5	61.4	61.2	60.8	59.8
30	60.3	59.2	58.8	57.7	56.5	54.9	53.6	51.8	52.4	49.7	48.3	46.6	54.2
31	46.3	45.5	45.2	45.2	45.1	45.4	45.5	46.0	46.2	46.4	46.3	45.3	45.7
Mean	59.78	59.78	59.77	59.46	59.34	59.04	59.02	59.20	59.16	59.01	58.88	58.62	59.29

1899. January.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	45.1	45.0	44.6	45.7	45.5	46.2	46.7	47.5	48.3	49.5	50.2	50.8	47.1
2	52.3	52.9	54.0	54.9	55.2	54.6	54.2	53.3	52.6	51.8	51.6	51.8	53.3
3	53.4	52.9	52.9	52.8	52.8	50.6	49.6	49.7	50.7	50.6	52.6	53.5	51.8
4	56.3	57.3	58.6	59.7	58.4	57.6	56.4	55.9	55.5	56.0	56.4	57.0	57.1
5	57.3	58.2	59.5	60.9	61.2	61.8	62.4	63.0	64.4	65.7	66.7	67.6	62.4
6	67.9	69.4	69.2	69.3	69.2	68.9	68.9	69.2	69.6	70.2	70.5	70.2	69.4
7	70.6	71.2	71.4	71.3	71.3	71.6	71.3	71.0	70.6	69.6	67.9	65.8	70.3
8	64.5	63.6	62.7	61.4	61.1	60.0	59.4	59.3	58.9	58.2	60.1	57.7	60.6
9	57.9	57.4	59.1	59.9	60.3	60.9	62.0	62.9	63.3	63.7	64.4	64.3	61.3
10	64.6	65.1	65.2	65.1	64.6	65.0	65.2	66.1	66.1	66.1	66.1	66.3	65.5
11	66.6	62.0	66.9	66.5	66.4	66.1	65.8	65.9	65.3	64.3	63.2	61.6	65.1
12	61.6	62.2	60.2	60.3	60.1	59.9	60.3	60.7	61.1	61.1	60.9	61.1	60.8
13	62.0	63.0	63.1	63.4	63.9	64.7	65.7	66.1	67.1	67.2	67.8	68.1	65.2
14	68.7	69.2	69.6	69.7	70.3	70.0	69.6	70.0	70.1	70.3	70.2	70.2	69.8
15	70.0	70.2	69.8	69.6	69.5	69.4	69.3	69.3	69.0	69.0	68.9	67.2	69.3
16	67.7	67.6	67.2	66.9	66.8	66.0	65.4	64.7	64.4	63.7	63.3	62.5	65.5
17	62.2	62.2	62.5	63.6	64.1	64.3	64.5	65.1	65.4	64.9	64.9	64.0	64.0
18	64.1	62.0	60.9	59.9	59.6	58.5	58.0	57.4	57.1	56.3	55.9	54.6	58.7
19	53.6	53.5	52.8	52.6	53.0	53.2	53.5	53.6	54.1	54.9	55.8	57.1	54.0
20	58.0	58.3	58.5	59.0	58.4	58.0	57.4	55.5	54.4	53.7	53.8	53.5	56.5
21	53.5	53.6	53.6	53.6	54.1	54.4	55.5	56.3	56.6	57.2	57.5	58.0	55.3
22	58.2	58.3	58.9	59.4	59.3	59.4	59.8	59.9	59.6	60.0	59.7	59.3	59.3
23	59.2	59.0	59.2	58.9	59.2	59.8	60.7	61.6	62.5	63.4	63.6	65.3	61.0
24	64.9	65.5	64.8	66.5	66.5	66.8	66.9	67.1	67.0	66.5	66.1	65.0	66.1
25	65.7	66.2	66.3	66.2	66.6	66.7	66.7	66.6	66.0	64.4	62.7	61.1	65.4
26	59.9	59.3	59.0	58.7	59.0	59.7	60.7	61.9	62.1	62.9	63.1	63.2	60.8
27	63.6	64.3	64.4	64.8	65.0	64.3	63.7	63.9	63.7	63.6	63.6	62.8	64.0
28	63.9	64.2	64.1	63.9	63.4	62.4	62.7	62.8	63.0	63.3	63.0	63.0	63.3
29	63.5	63.9	65.0	65.7	65.3	66.3	66.8	67.3	67.4	66.8	65.9	64.5	65.7
30	63.5	61.8	60.4	59.6	58.3	57.0	56.5	56.3	56.4	57.0	57.6	58.5	58.6
31	59.1	61.4	62.2	63.4	63.7	63.6	63.1	62.5	62.2	62.3	61.4	61.3	62.2
Mean	61.27	61.31	61.50	61.72	61.68	61.54	61.57	61.69	61.76	61.75	61.79	61.51	61.58

1899. February.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. Sea-Level. St. Gr. GC = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	62.1	62.4	63.2	64.6	65.0	65.7	66.1	66.1	67.9	68.1	68.4	68.1	65.6
2	66.9	67.3	66.9	66.6	66.5	66.2	66.1	66.4	66.6	66.0	65.8	65.1	66.4
3	64.7	64.5	65.4	65.9	66.6	67.2	67.7	68.3	69.1	69.6	70.1	69.5	67.4
4	69.0	68.3	67.6	67.1	67.0	66.7	66.7	67.4	67.3	68.0	68.6	69.2	68.8
5	68.9	69.1	68.1	69.5	70.0	70.2	70.2	70.3	69.9	69.2	68.9	64.0	69.0
6	67.5	66.2	65.2	65.6	66.7	67.3	68.4	69.3	70.4	71.1	72.4	73.3	68.6
7	73.6	75.8	76.4	76.7	76.9	76.7	76.5	76.3	75.4	74.3	73.2	71.8	75.1
8	70.7	69.7	68.2	67.4	66.7	66.0	66.2	65.5	65.0	63.8	63.0	61.3	66.1
9	59.8	57.4	54.8	52.9	51.3	50.7	51.2	52.1	53.2	53.2	53.3	53.7	53.6
10	53.9	54.8	54.9	54.6	54.4	54.0	54.3	53.2	52.5	51.7	50.4	50.2	53.2
11	50.3	49.6	50.2	50.4	50.4	50.4	50.8	51.8	52.4	53.1	53.3	52.7	51.3
12	51.9	51.6	51.0	50.0	48.1	46.5	45.7	45.3	45.2	45.7	46.1	46.9	47.8
13	48.2	48.9	50.3	50.6	50.8	50.2	50.8	51.5	51.9	52.6	53.3	53.9	51.1
14	54.1	54.7	55.3	55.4	54.5	53.5	52.3	51.9	51.6	51.2	50.3	50.0	52.9
15	48.6	47.2	46.7	45.7	45.0	43.9	43.4	43.5	44.8	45.4	45.9	46.3	45.5
16	47.0	47.6	48.4	49.1	49.6	50.0	50.1	50.5	50.9	50.9	50.1	49.4	49.5
17	49.3	48.4	47.3	47.8	47.8	48.1	48.2	48.8	49.3	49.7	49.7	49.7	48.7
18	49.3	49.3	49.5	50.0	50.6	50.9	51.0	51.2	51.7	51.9	52.0	52.3	50.8
19	52.7	53.0	53.8	54.4	55.4	56.1	57.1	58.3	59.3	60.0	60.7	61.2	56.8
20	62.2	63.4	63.8	64.2	64.8	65.6	66.0	67.0	66.9	66.9	67.4	67.3	65.5
21	68.0	68.1	68.8	68.9	69.1	69.3	70.0	70.8	71.5	71.8	71.9	72.1	70.0
22	72.3	72.6	73.1	73.5	73.7	74.1	74.3	75.6	75.7	76.1	76.4	76.5	74.5
23	76.1	77.2	77.4	77.1	77.2	77.7	77.1	76.9	76.8	76.4	76.0	75.8	76.8
24	75.3	75.8	75.6	75.5	75.5	75.5	75.8	75.7	75.5	75.2	74.7	74.2	75.4
25	74.2	74.1	73.9	73.7	73.8	73.6	73.6	73.8	74.2	73.9	73.7	74.2	73.9
26	74.7	74.8	74.8	74.8	74.9	75.0	74.9	75.1	75.1	75.1	75.0	75.1	74.9
27	74.4	74.9	74.7	74.8	74.6	74.5	74.0	74.1	74.0	74.1	74.0	74.0	74.3
28	74.5	74.9	76.0	76.9	77.8	78.3	79.0	79.5	80.4	80.7	80.9	81.7	78.4
Mean	62.86	62.91	62.90	62.99	63.02	62.96	63.11	63.44	63.73	63.78	63.77	63.55	63.25

1899. March.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	82.5	83.5	84.0	84.5	84.8	84.6	86.0	84.8	85.2	85.0	84.6	83.4	84.4
2	82.7	82.7	82.2	81.5	80.7	80.2	79.9	79.8	79.7	79.9	79.5	79.4	80.7
3	78.9	78.5	78.5	78.5	78.4	78.2	77.6	77.4	77.1	76.7	76.4	76.0	77.7
4	75.7	76.0	75.5	75.5	75.7	75.7	75.5	75.6	76.0	76.5	76.2	75.7	75.8
5	76.9	76.0	76.6	76.7	77.1	76.9	77.2	76.6	76.6	76.3	76.3	75.5	76.6
6	74.8	74.5	74.3	73.8	73.6	72.4	72.3	72.2	71.3	70.7	70.1	68.7	72.4
7	66.7	65.6	64.7	63.1	61.6	59.7	58.5	57.4	56.2	55.6	55.7	56.6	60.1
8	57.4	57.9	59.3	60.9	62.1	63.2	64.3	64.8	65.2	65.3	64.8	64.8	62.5
9	64.4	64.4	63.3	62.4	61.3	60.4	60.1	59.5	58.9	58.4	58.0	58.0	60.8
10	57.9	58.0	57.9	58.3	58.6	58.8	58.9	59.2	58.9	58.7	58.0	57.7	58.4
11	57.4	57.3	56.9	57.0	57.2	57.3	57.5	57.8	58.1	58.2	58.1	58.0	57.6
12	58.7	59.7	60.0	60.7	61.1	61.3	62.1	62.6	63.0	63.2	62.9	62.7	61.5
13	63.0	63.2	63.6	63.9	64.0	63.6	63.4	64.2	65.1	65.4	65.9	67.2	64.4
14	68.2	69.3	70.9	72.3	73.2	73.9	74.4	75.4	76.3	76.4	76.1	75.6	73.5
15	75.3	75.1	75.3	73.8	73.4	72.7	72.1	72.3	73.0	74.0	74.7	75.4	73.9
16	76.3	77.6	78.5	79.0	79.6	79.7	80.6	81.6	82.4	82.6	82.9	83.1	80.3
17	83.2	83.1	82.5	82.2	82.2	81.9	81.7	82.1	82.1	82.4	82.6	82.9	82.4
18	83.2	84.0	84.0	84.1	84.4	84.1	83.8	83.6	83.4	83.2	83.2	83.1	83.7
19	82.9	81.8	81.7	82.4	81.4	81.1	81.1	80.8	80.1	79.5	79.1	78.2	80.8
20	77.5	76.5	75.4	75.4	75.0	74.6	74.2	74.3	74.4	74.5	74.7	76.6	75.3
21	77.0	77.0	77.8	78.2	78.8	78.8	79.2	79.8	81.0	81.4	82.4	83.4	79.3
22	85.3	86.3	88.4	89.7	90.5	90.8	91.0	90.9	90.6	90.2	90.1	91.0	89.6
23	85.6	85.3	85.1	84.3	84.0	83.9	84.4	85.2	84.0	84.1	84.1	84.0	84.5
24	83.7	83.7	83.6	83.0	82.6	82.5	82.6	82.8	83.1	83.2	83.8	84.2	83.2
25	82.6	82.8	83.1	83.1	83.8	84.2	85.0	86.5	86.5	85.9	86.1	85.3	84.6
26	84.7	84.2	83.8	83.2	82.2	81.9	80.8	79.9	78.9	77.4	75.9	74.6	80.6
27	74.0	72.9	71.7	70.9	70.7	70.3	70.4	70.8	70.7	70.4	70.3	70.1	71.1
28	71.3	70.9	71.2	71.5	71.6	71.4	71.5	71.9	72.1	72.2	72.3	72.2	71.7
29	72.5	72.9	72.7	73.1	73.3	73.4	74.1	74.3	75.2	75.6	76.3	76.7	74.2
30	77.5	78.1	79.2	79.5	80.0	80.0	80.4	81.0	81.3	81.4	81.3	80.5	80.0
31	79.9	79.3	79.2	78.3	76.9	75.7	74.9	74.0	73.1	71.9	71.0	70.0	75.4
Mean	74.76	74.78	74.87	74.86	74.83	74.62	74.69	74.81	74.82	74.72	74.63	74.54	74.74

1899. April.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	69.8	69.3	69.6	69.4	69.1	68.5	68.4	68.2	68.1	67.9	67.7	67.5	68.6
2	67.3	67.2	65.9	65.9	65.5	64.8	64.3	63.7	63.3	62.8	62.1	61.3	64.5
3	60.6	60.5	60.2	59.4	59.0	58.3	57.8	57.4	57.0	56.3	56.0	55.1	58.1
4	54.7	54.1	53.8	53.5	53.0	53.1	53.0	53.3	53.4	53.6	54.0	54.9	53.7
5	55.6	56.4	57.0	57.6	57.9	58.2	58.5	58.9	59.0	59.0	59.4	59.8	58.1
6	60.5	61.1	61.5	61.9	62.7	63.2	64.0	64.6	64.4	64.6	64.9	65.1	63.2
7	64.8	65.4	65.4	65.4	65.2	65.4	65.4	65.8	66.2	66.2	66.5	66.9	65.7
8	68.2	67.5	67.4	67.4	67.5	67.5	67.9	68.3	68.3	68.1	67.9	68.2	67.9
9	68.2	68.7	68.6	68.5	68.5	68.6	69.0	69.4	69.9	69.7	69.9	69.6	69.1
10	69.9	69.9	69.7	69.0	68.6	68.1	67.4	67.1	66.1	65.1	63.5	62.6	67.3
11	61.7	61.7	60.1	59.2	58.6	57.6	57.0	57.1	57.2	57.5	57.9	58.8	58.7
12	59.4	60.6	61.7	63.2	64.5	65.9	67.5	68.7	68.9	69.2	69.4	69.5	65.7
13	69.3	71.0	71.2	71.5	71.5	71.3	71.4	71.5	71.5	71.4	71.0	71.0	71.1
14	71.0	71.2	71.6	71.1	70.7	70.2	69.9	70.4	70.5	70.3	70.3	70.6	70.7
15	70.7	71.2	71.7	72.4	72.8	72.9	73.0	73.2	73.7	73.9	73.6	73.3	72.7
16	72.9	72.9	73.1	72.9	72.7	72.5	72.4	72.6	72.4	72.1	72.1	71.9	72.5
17	71.7	71.5	70.8	71.9	72.4	72.9	73.4	74.0	74.5	75.3	75.9	76.1	73.4
18	76.5	77.0	77.5	78.9	79.7	80.1	80.5	80.9	80.6	80.6	80.8	80.5	79.5
19	79.5	79.8	79.5	78.7	78.2	77.1	75.9	74.5	72.6	70.8	69.7	68.1	75.4
20	67.3	66.9	66.1	65.9	66.3	66.4	66.9	67.2	67.6	68.2	68.6	68.7	67.2
21	69.4	71.5	70.7	71.2	71.3	72.7	71.7	71.9	72.2	71.9	71.9	71.6	71.5
22	71.6	71.7	71.7	71.6	71.3	71.1	70.8	70.6	70.2	69.7	69.0	69.1	71.1
23	68.2	68.2	68.9	68.9	67.4	66.6	65.6	64.6	64.0	64.3	64.5	64.5	66.3
24	64.4	64.5	64.3	63.9	63.4	62.7	62.6	62.6	62.4	62.2	61.9	61.6	63.0
25	61.0	60.4	60.0	60.9	60.9	61.5	62.2	63.3	64.6	66.0	66.9	67.8	63.0
26	69.4	70.3	71.1	71.3	71.3	71.3	71.1	71.1	70.9	70.6	70.3	69.7	70.7
27	69.7	69.6	69.5	68.7	68.8	67.7	67.4	67.1	67.2	66.4	66.4	65.5	67.8
28	65.5	65.1	64.6	64.1	63.5	62.6	60.9	60.1	59.0	59.6	60.3	60.4	62.1
29	59.6	61.2	62.2	62.4	62.5	61.7	61.1	60.3	59.2	58.5	56.6	56.0	60.1
30	54.8	53.8	54.3	54.6	55.6	56.3	57.2	58.3	59.5	60.3	60.4	60.1	57.1
Mean	66.44	66.67	66.66	66.71	66.68	66.56	66.47	66.56	66.48	66.40	66.31	66.19	66.51

1899. May.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	60.6	60.4	60.0	60.4	60.3	59.2	58.9	58.0	57.6	57.6	57.9	58.2	59.1
2	58.2	58.6	59.0	59.5	60.5	61.5	62.3	62.7	64.0	64.9	65.7	65.7	61.9
3	66.2	66.3	67.8	68.2	68.2	69.7	70.1	70.9	70.4	71.6	72.1	72.7	69.5
4	73.2	73.0	73.9	74.1	74.4	74.3	74.2	74.1	73.5	73.1	72.7	72.0	73.5
5	71.5	71.2	70.3	69.9	69.6	69.0	68.0	67.3	66.3	65.2	64.5	64.2	68.1
6	63.9	63.8	63.6	63.2	63.2	63.1	62.7	62.2	61.7	60.9	60.5	60.7	62.5
7	60.7	60.1	59.3	58.9	58.7	59.4	60.6	61.7	62.5	62.8	63.0	63.3	60.9
8	63.2	63.0	63.0	62.7	62.8	62.7	62.9	62.9	62.9	62.8	62.4	62.5	62.8
9	63.9	64.1	64.9	65.4	65.8	66.3	66.7	66.9	67.5	67.7	67.8	68.1	66.3
10	68.4	69.5	69.8	70.4	70.4	70.3	71.0	71.1	71.2	71.2	70.4	70.3	70.3
11	69.8	69.8	70.2	70.4	70.2	69.9	69.9	69.9	70.0	70.1	70.2	70.5	70.1
12	70.7	70.8	72.0	72.2	71.9	71.5	70.6	69.8	69.2	67.8	66.1	63.8	69.7
13	63.1	62.3	61.2	60.4	60.4	59.7	59.5	59.4	59.4	59.7	60.1	60.2	60.5
14	60.8	61.7	62.2	62.5	62.9	63.3	64.0	65.6	67.2	67.8	67.3	67.6	64.4
15	67.8	68.9	69.3	70.3	70.2	70.5	70.7	71.9	72.5	72.5	73.1	73.5	70.9
16	73.8	74.0	74.0	74.4	74.3	74.9	74.5	74.4	74.0	74.2	74.2	74.1	74.2
17	74.2	73.6	74.0	73.7	73.7	73.4	73.2	72.9	72.7	72.4	72.2	71.8	73.2
18	71.6	70.9	69.7	69.1	68.7	68.2	67.8	67.5	67.3	67.1	67.1	67.1	68.5
19	67.1	66.8	66.6	66.9	67.1	67.0	66.4	66.3	66.4	66.6	66.7	67.2	66.8
20	67.2	67.5	67.4	67.7	67.9	68.2	68.1	68.1	68.1	67.9	67.8	67.5	67.8
21	68.0	68.0	68.8	68.9	69.1	69.1	69.1	69.4	69.8	70.0	70.2	70.3	69.2
22	71.2	71.6	71.5	71.6	71.5	71.2	70.4	70.5	70.0	69.7	69.2	68.6	70.6
23	68.3	68.0	67.0	66.3	65.3	65.0	64.7	64.4	63.9	63.5	63.3	63.5	65.3
24	63.7	64.3	64.4	64.8	64.9	64.7	64.8	64.8	64.4	63.7	63.0	62.1	64.1
25	61.6	61.2	60.7	60.0	59.4	58.9	58.8	58.8	58.5	58.3	58.6	58.7	59.5
26	58.8	59.3	59.3	59.7	59.6	59.7	60.0	60.5	60.8	61.0	61.0	61.0	60.1
27	61.0	61.3	61.5	61.9	62.0	62.3	62.9	63.4	63.8	64.5	64.8	64.9	62.9
28	65.2	65.5	65.8	65.7	65.4	65.2	64.9	64.7	64.5	64.2	63.5	62.9	64.8
29	62.4	62.1	61.9	62.8	62.1	61.8	61.9	62.2	62.5	63.1	63.4	64.0	62.5
30	63.8	64.3	64.8	65.4	65.5	65.4	65.5	65.6	65.7	65.9	66.1	65.9	65.3
31	66.2	66.2	66.2	66.2	66.0	66.1	65.8	65.8	65.7	65.5	65.3	65.5	65.9
Mean	66.00	66.07	66.13	66.23	66.19	66.18	66.16	66.25	66.26	66.24	66.14	66.08	66.16

1899. June.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	65.3	65.5	65.7	65.9	66.2	66.3	66.5	66.5	66.9	67.3	67.7	68.5	66.5
2	69.0	69.2	69.2	69.2	69.1	68.5	67.8	66.9	66.0	65.2	64.4	63.3	67.3
3	62.2	61.4	60.4	60.8	59.3	58.7	58.6	59.0	59.2	59.6	60.0	60.5	60.0
4	61.2	62.1	63.0	63.2	63.6	64.2	64.4	64.5	64.6	64.8	64.7	64.7	63.8
5	64.7	64.9	65.4	65.2	65.2	65.0	65.2	65.2	65.3	65.6	65.7	65.5	65.2
6	66.2	66.7	66.9	66.3	67.4	67.5	67.8	68.1	68.2	67.9	67.6	67.4	67.3
7	67.2	66.6	65.8	65.0	63.9	63.4	63.1	62.9	62.9	63.3	63.6	64.0	64.3
8	64.3	64.9	65.2	65.3	65.0	64.1	63.6	62.9	61.7	59.9	58.0	56.0	62.6
9	54.2	53.6	52.9	52.6	52.3	52.1	52.3	52.6	53.1	52.9	53.0	53.3	52.9
10	54.0	54.9	55.4	56.1	56.8	56.6	56.7	58.3	57.7	57.3	57.2	57.2	56.5
11	56.2	56.0	55.6	55.1	54.4	53.6	53.4	53.3	53.6	53.7	53.8	53.6	54.4
12	54.0	54.3	54.0	54.4	54.0	53.4	53.1	53.0	52.9	52.7	52.3	52.1	53.3
13	51.9	51.6	51.7	51.5	51.4	50.9	50.8	51.2	51.2	51.2	50.6	50.0	51.2
14	50.5	50.3	50.1	50.0	49.4	49.0	48.5	47.9	47.7	47.4	46.7	46.2	48.7
15	45.9	45.8	45.6	45.4	44.7	44.7	44.5	44.5	44.6	45.0	45.2	45.4	45.1
16	45.0	45.8	46.1	45.6	45.3	44.9	44.9	44.4	43.8	43.4	43.1	42.8	44.6
17	42.5	42.3	42.4	42.6	43.0	43.2	43.6	44.8	45.3	46.1	46.5	47.1	44.2
18	47.3	47.9	48.4	48.6	48.7	48.8	49.1	49.2	49.5	49.6	49.7	49.6	48.9
19	49.9	50.3	50.6	50.7	51.4	51.0	51.1	51.4	51.5	52.0	52.2	52.3	51.2
20	53.0	53.8	54.7	54.7	55.0	55.3	55.8	56.0	56.2	56.4	56.3	56.2	55.3
21	56.3	56.3	56.2	56.3	56.2	56.4	56.7	57.0	57.4	57.8	57.9	58.5	56.9
22	58.8	59.0	58.8	58.5	58.6	57.3	57.4	58.1	57.7	58.0	57.6	57.6	58.2
23	58.0	57.8	58.1	59.1	59.7	60.1	60.7	61.6	61.9	61.8	62.2	62.3	60.3
24	62.7	63.0	63.2	64.3	64.3	64.3	64.7	65.2	65.8	66.0	66.3	66.3	64.7
25	66.7	67.4	67.5	67.1	67.1	66.1	65.5	65.2	65.1	65.0	63.9	62.5	65.8
26	60.7	59.9	60.8	61.4	61.4	61.3	61.9	62.7	63.7	64.2	64.5	64.7	62.3
27	65.8	66.7	66.8	66.6	66.0	65.1	64.1	63.1	62.2	61.2	59.9	57.5	63.8
28	57.4	56.3	57.1	56.7	57.1	57.1	57.3	57.7	58.1	60.1	59.8	60.3	57.9
29	61.0	61.9	62.9	64.3	63.7	64.1	64.1	64.2	64.2	64.3	64.3	64.6	63.6
30	64.3	64.6	64.8	64.7	64.3	64.1	64.0	63.7	63.7	63.7	63.7	63.9	64.1
Mean	57.87	58.03	58.18	58.24	58.15	57.90	57.91	58.04	58.06	58.11	57.95	57.80	58.02

1899. July.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. Sea-Level. St. Gr. GC. = + 1.85 at 759.3. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	64.2	64.2	64.8	65.4	65.6	65.5	65.6	65.4	*65.4*	65.7	65.0	66.9	65.3
2	66.7	66.9	67.1	67.2	67.5	67.4	67.9	68.0	67.7	67.6	67.6	67.8	67.5
3	67.3	67.3	67.1	66.8	66.5	66.0	*65.7*	65.4	65.0	64.6	64.2	64.1	65.8
4	63.9	63.8	63.9	63.8	63.8	63.4	63.4	63.6	63.2	63.1	63.6	63.0	63.5
5	63.2	63.2	63.3	62.6	62.7	62.1	61.9	61.8	61.1	60.6	59.6	60.0	61.8
6	59.7	59.8	59.0	59.7	58.6	58.1	58.5	58.1	58.1	58.2	57.7	58.4	58.8
7	58.2	58.5	58.4	58.4	58.5	58.4	58.4	59.3	59.7	59.6	60.1	60.2	59.0
8	60.3	60.6	60.9	59.9	*59.8*	59.6	59.6	59.4	59.0	58.3	58.0	57.7	59.3
9	57.4	57.9	58.0	57.4	56.9	56.5	56.2	56.0	56.0	55.9	55.6	55.4	56.6
10	54.8	55.1	54.9	54.7	54.3	53.7	*53.6*	53.4	52.8	52.2	51.9	51.0	53.5
11	50.7	50.9	51.0	50.7	50.8	50.3	*50.0*	49.9	50.0	49.9	49.4	48.8	50.2
12	48.7	48.3	47.9	48.6	48.4	48.4	48.5	48.7	49.5	49.6	49.4	49.3	48.8
13	49.7	49.6	49.6	49.0	49.1	47.4	48.4	47.7	47.9	48.1	48.2	50.2	48.7
14	51.7	52.1	53.2	54.4	55.1	55.5	56.5	56.8	57.3	57.9	57.8	58.0	55.5
15	58.1	57.9	58.4	57.3	57.1	56.6	56.9	56.8	56.7	56.3	55.9	55.1	56.8
16	54.3	*54.2*	54.1	54.0	53.7	53.6	53.2	53.5	53.2	52.7	52.7	53.0	53.5
17	52.7	53.5	53.5	53.9	54.1	54.6	54.3	53.4	53.9	54.3	54.6	55.0	54.0
18	55.6	56.7	56.9	57.7	58.0	58.0	57.9	58.0	58.1	58.2	58.1	58.1	57.6
19	58.4	58.2	58.0	57.8	57.4	57.3	57.2	56.8	56.4	56.1	55.7	55.1	57.0
20	54.9	54.5	53.3	53.5	52.8	52.5	52.9	52.7	52.5	52.8	52.8	53.0	50.7
21	53.4	54.1	54.1	54.3	54.3	54.3	54.2	53.9	53.9	53.6	52.8	52.5	53.8
22	52.3	52.1	52.0	51.4	51.1	50.7	50.5	50.2	49.8	49.2	49.0	48.8	50.6
23	49.1	49.2	49.6	*49.8*	49.9	49.8	50.1	50.4	50.6	50.5	50.6	50.7	50.0
24	51.1	51.0	51.8	52.4									51.6
Mean*	56.75	56.89	56.91	56.88	56.78	56.51	56.58	56.49	56.42	56.30	56.10	56.18	56.56

* 1st to 23rd.

1899. October.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
23							64.6	63.8	63.0	62.3	60.8	59.4	62.3
24	59.1	56.7	55.6	55.9	56.0	55.2	54.5	54.6	54.3	54.2	53.5	53.5	55.3
25	53.6	53.3	53.4	53.6	53.7	53.5	53.6	53.8	53.7	53.9	53.6	54.3	53.7
26	52.0	53.6	53.2	53.0	52.9	52.9	53.0	52.9	52.9	53.0	53.4	53.6	53.0
27	53.7	53.9	54.3	55.0	55.1	55.5	56.0	56.6	57.0	57.2	57.8	57.9	55.8
28	58.7	58.6	59.2	59.5	60.0	60.4	60.7	61.2	61.4	61.4	61.3	61.9	60.4
29	61.9	62.7	62.4	62.4	62.5	62.8	63.1	63.2	63.4	63.5	63.2	63.1	62.9
30	63.8	64.1	63.9	64.3	64.5	64.6	64.7	65.2	65.2	65.1	64.8	64.3	64.5
31	63.8	63.6	62.6	61.8	61.3	60.5	59.7	58.5	56.9	55.6	54.4	53.6	59.4
Mean*	58.33	58.31	58.08	58.16	58.25	58.18	58.16	58.25	58.10	57.99	57.75	57.77	58.11

* 24th to 31st.

1899 November.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	53.6	53.0	53.2	53.5	53.7	54.1	54.8	55.4	55.9	56.0	56.1	56.5	54.7
2	55.8	57.8	56.6	56.1	57.3	57.3	57.8	57.2	56.3	55.1	54.2	52.8	56.2
3	52.4	52.2	52.9	52.9	52.7	53.5	54.5	55.2	55.3	55.3	54.4	53.6	53.7
4	53.5	53.3	53.1	53.0	53.6	53.7	54.2	54.4	54.7	54.7	54.1	54.3	53.9
5	54.5	54.9	54.6	54.1	54.0	53.6	53.2	52.7	52.4	51.6	50.9	50.3	53.1
6	49.8	49.3	49.2	49.1	49.3	49.3	49.5	50.0	50.6	50.8	51.4	51.3	50.0
7	52.1	52.7	52.5	53.7	54.4	54.8	55.5	56.0	56.5	56.9	57.0	56.7	54.9
8	56.5	56.7	57.0	57.0	56.8	56.5	56.4	56.2	56.2	56.2	56.5	56.6	56.6
9	56.6	57.0	57.0	56.9	56.7	56.2	55.8	55.7	55.7	55.5	55.3	54.9	56.1
10	54.8	54.8	54.5	54.0	54.0	53.7	53.6	53.5	53.7	53.7	53.8	53.6	54.0
11	53.5	53.5	53.5	53.3	53.3	53.2	53.1	53.0	52.8	52.5	52.0	51.6	52.9
12	51.2	51.1	50.8	50.7	50.7	50.6	51.2	51.8	52.3	52.4	52.8	52.7	51.5
13	53.7	54.5	55.5	55.9	57.4	58.5	59.6	59.9	59.9	60.2	60.4	59.2	57.9
14	58.2	58.3	58.0	57.2	56.2	55.4	54.4	54.1	53.2	51.6	50.3	48.2	54.6
15	46.8	45.3	43.2	41.9	41.4	40.7	41.0	42.5	42.7	43.6	44.9	46.7	43.4
16	48.6	50.0	52.0	53.4	55.1	56.3	58.2	59.1	60.0	60.3	61.0	61.0	56.3
17	61.9	61.4	61.2	61.7	62.1	62.7	64.4	65.6	66.2	67.3	67.5	67.9	64.2
18	67.9	68.4	67.9	67.8	67.5	67.3	67.0	67.1	66.9	66.6	66.2	65.9	67.2
19	65.4	65.3	64.9	64.9	64.3	63.9	63.7	64.1	64.1	64.5	64.5	64.9	64.5
20	65.7	66.3	66.8	66.9	67.6	67.9	68.2	69.1	69.9	70.4	70.7	71.0	68.4
21	71.7	71.9	71.8	72.0	71.9	71.5	70.8	70.2	69.3	68.4	67.4	66.5	70.3
22	65.4	65.1	64.6	64.0	63.8	63.7	63.8	63.8	63.9	63.8	64.0	63.9	64.2
23	64.1	64.5	64.6	64.5	64.6	64.3	63.8	63.6	63.2	63.0	62.7	63.0	63.8
24	63.0	63.0	62.7	63.3	64.3	65.0	65.6	66.0	66.5	67.1	67.5	67.5	65.1
25	67.3	67.0	66.1	65.8	65.0	64.0	63.0	62.1	61.0	60.4	59.4	58.3	63.3
26	58.0	58.0	57.9	57.6	57.6	58.4	59.0	59.8	60.1	60.8	61.0	61.5	59.2
27	62.1	62.6	62.7	62.8	63.0	62.8	62.5	62.5	62.1	61.6	61.6	61.5	62.3
28	61.7	61.7	61.8	62.0	62.1	62.1	62.0	62.1	61.7	61.3	61.0	60.0	61.6
29	59.9	59.8	60.0	59.6	59.5	60.0	59.8	60.4	60.7	61.3	61.1	60.8	60.2
30	61.0	61.1	60.5	60.5	60.7	60.2	60.6	60.6	60.5	60.5	60.3	60.3	60.6
Mean	58.22	58.35	58.24	58.20	58.35	58.37	58.57	58.79	58.81	58.78	58.67	58.43	58.47

1899. December.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	60.3	60.4	60.3	60.1	60.1	60.1	60.3	60.3	60.4	60.4	60.4	60.6	60.3
2	61.5	62.5	63.4	64.6	65.7	67.1	68.1	69.1	70.2	70.5	70.5	71.0	67.0
3	71.4	71.9	72.0	71.9	71.9	71.9	71.8	71.7	71.2	71.0	69.5	68.5	71.2
4	67.7	67.0	66.4	64.4	64.1	63.0	62.5	62.3	61.9	61.0	60.1	59.3	63.3
5	58.5	57.5	56.8	55.6	54.4	53.0	51.7	51.2	50.4	49.6	48.6	47.9	52.9
6	47.7	47.7	47.9	47.5	47.2	46.1	45.5	45.0	44.1	43.5	42.0	41.6	45.5
7	41.8	42.1	42.3	42.6	43.4	43.2	43.8	44.2	44.3	44.7	44.7	44.7	43.5
8	45.7	45.4	45.5	45.6	45.5	45.5	45.3	45.1	44.8	44.6	44.5	44.9	45.0
9	45.6	47.0	48.9	50.6	51.5	53.7	55.8	56.8	57.7	58.3	58.9	59.3	53.7
10	59.7	60.3	60.3	60.7	60.3	60.2	59.8	59.3	58.7	58.2	57.9	57.4	59.4
11	57.2	57.2	57.2	57.2	58.0	58.6	58.7	59.3	59.4	59.4	59.4	59.9	58.5
12	59.3	58.1	57.5	56.3	55.2	54.7	54.4	54.8	54.7	54.9	55.2	56.2	55.9
13	57.1	57.2	57.7	58.3	59.2	59.3	60.8	61.0	61.1	60.6	60.1	59.2	59.3
14	58.6	57.5	56.9	56.7	56.3	56.2	56.3	56.2	55.7	55.2	54.7	54.4	56.2
15	54.8	55.2	55.0	54.8	54.7	55.0	55.1	55.6	56.6	56.5	56.6	56.9	55.6
16	57.2	57.7	58.2	58.2	58.5	58.5	58.5	58.6	58.5	58.3	58.1	57.9	58.2
17	58.3	58.5	58.8	58.7	58.6	58.8	59.1	59.5	59.9	60.4	60.7	61.4	59.4
18	62.0	62.3	63.0	63.0	63.3	63.4	63.5	63.8	64.2	64.6	64.5	64.7	63.5
19	64.9	65.1	65.3	65.1	64.7	64.7	64.9	65.1	65.2	65.0	64.6	64.3	64.9
20	64.1	63.9	63.6	62.5	61.8	60.9	60.1	58.9	57.8	56.8	55.4	54.3	60.0
21	53.5	53.2	53.2	53.1	53.5	54.0	54.4	54.9	55.8	56.0	56.3	56.7	54.6
22	57.6	57.9	58.4	58.8	58.9	59.0	59.3	59.9	60.1	60.3	59.8	59.7	59.2
23	59.2	59.2	59.2	59.1	59.2	58.0	57.7	56.9	56.4	55.8	55.1	54.0	57.5
24	52.6	52.6	52.9	52.7	53.1	53.1	53.8	53.1	52.9	53.2	53.0	54.4	53.1
25	54.1	54.4	54.7	56.5	58.3	60.6	62.6	63.9	65.3	65.8	65.7	65.2	60.6
26	65.2	65.7	66.1	66.8	68.4	69.7	69.9	71.2	71.4	71.1	70.8	70.6	68.9
27	72.5	73.2	75.2	76.0	77.8	77.6	78.5	78.5	77.9	78.2	78.3	78.1	76.8
28	77.8	77.8	78.2	79.2	79.9	80.2	81.3	82.6	82.3	82.6	83.1	83.4	80.7
29	83.7	83.8	83.8	84.0	83.7	84.8	84.8	85.7	86.3	87.0	87.3	88.0	85.2
30	87.5	88.0	88.4	88.4	89.0	89.6	89.6	89.9	91.3	89.8	89.4	89.4	89.2
31	89.1	87.6	86.6	85.8	84.5	83.2	80.6	79.3	77.4	74.8	73.1	71.7	81.1
Mean	61.49	61.55	61.73	61.77	61.96	62.05	62.21	62.38	62.38	62.20	61.88	61.79	61.95

1900. January.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC- = + 1.75 at 744.8. 700 mm +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	70.3	69.0	68.8	68.0	67.3	67.4	66.9	67.3	66.9	66.3	65.4	64.9	67.4
2	64.2	63.7	63.2	62.2	61.7	61.2	60.8	60.7	60.8	60.2	59.7	58.9	61.4
3	58.7	58.3	57.3	54.9	53.4	52.0	50.2	49.6	48.6	47.5	46.8	45.7	51.9
4	45.5	45.4	44.9	44.3	43.6	44.0	43.7	43.3	43.6	44.0	44.7	43.8	44.2
5	43.6	43.5	43.5	43.4	43.4	43.4	43.5	43.9	44.6	44.8	45.0	45.1	44.0
6	45.4	45.9	46.7	47.3	48.1	48.2	48.5	48.8	49.0	48.9	49.0	48.8	47.9
7	48.7	48.6	48.5	47.9	49.0	49.2	49.0	49.2	49.3	49.6	49.7	49.8	49.0
8	50.6	51.3	51.8	52.7	53.7	54.7	55.4	56.5	57.2	57.6	57.6	58.3	54.8
9	59.1	59.5	59.6	59.4	59.8	59.8	59.5	59.5	60.2	59.3	58.8	58.2	59.4
10	57.2	56.6	55.7	55.2	54.7	53.9	53.2	52.8	52.3	51.5	51.1	50.5	53.7
11	50.8	51.3	52.0	52.0	53.1	53.4	53.7	54.0	54.3	54.3	54.2	54.0	53.1
12	54.0	54.0	54.2	53.2	53.9	54.0	54.7	55.4	56.1	56.6	57.3	58.1	55.1
13	58.8	59.6	60.1	60.0	60.7	60.1	59.6	59.2	58.6	58.1	56.7	55.8	58.9
14	55.5	55.4	55.1	54.4	54.6	54.5	55.1	55.7	56.3	56.4	56.8	57.1	55.6
15	57.9	58.6	58.3	58.4	58.3	58.2	58.2	58.2	57.8	57.0	56.3	55.6	54.6
16	55.3	55.6	55.8	55.9	56.1	56.9	57.3	58.1	58.3	58.3	58.2	58.2	57.0
17	58.6	58.7	59.1	58.7	58.6	59.1	59.1	59.1	59.2	58.5	57.9	57.6	58.7
18	56.4	56.1	55.6	55.6	55.0	54.2	53.9	53.8	53.7	53.2	52.6	51.8	54.3
19	51.4	51.3	50.9	50.3	50.4	50.0	49.6	49.9	49.3	49.3	48.6	47.8	49.9
20	46.5	46.4	45.6	44.6	44.1	43.4	43.3	43.8	44.5	45.3	45.6	46.5	45.0
21	47.0	48.0	48.7	49.3	49.6	50.8	50.1	50.8	51.0	50.8	50.7	50.3	49.8
22	50.3	50.4	51.0	51.4	51.7	52.0	52.8	53.9	54.9	55.7	56.7	57.3	53.2
23	58.4	59.4	59.8	60.1	60.2	60.0	59.8	59.8	59.8	59.4	59.0	58.4	59.5
24	58.1	57.9	57.6	57.8	57.5	57.9	58.0	58.4	58.6	58.7	58.4	58.7	58.1
25	57.9	57.3	56.9	56.5	56.2	56.1	56.1	56.3	56.6	56.8	57.0	57.6	56.8
26	58.1	58.7	58.5	59.8	61.0	62.2	63.0	63.5	64.5	64.6	65.0	65.1	62.0
27	64.3	64.1	62.7	61.1	60.5	59.6	58.3	57.8	57.1	56.2	55.4	54.4	59.3
28	53.2	51.9	51.0	50.4	49.4	48.8	48.8	48.6	48.0	47.6	47.2	47.1	49.3
29	47.1	47.4	47.9	48.6	50.0	51.3	53.0	54.7	56.5	58.5	60.4	62.2	53.1
30	63.5	65.3	66.3	67.5	68.3	69.7	70.8	71.4	71.7	71.7	71.5	71.4	69.1
31	71.4	71.9	71.0	70.5	70.1	69.4	68.9	68.8	68.8	68.3	68.0	67.5	69.6
Mean	55.41	55.52	55.42	55.21	55.29	55.33	55.32	55.57	55.75	55.65	55.53	55.37	55.45

1900. February.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	67.1	68.2	68.0	68.1	68.0	67.5	67.4	67.4	67.2	67.0	66.8	65.8	67.4
2	65.8	65.0	66.2	66.2	66.0	65.9	64.8	64.6	64.1	63.2	62.5	61.3	64.6
3	61.0	61.0	61.1	61.0	61.7	62.4	62.4	62.4	62.1	62.1	61.8	61.0	61.7
4	62.3	63.4	63.9	64.8	66.3	66.8	67.1	67.6	67.5	67.6	66.9	66.4	65.9
5	65.8	65.4	65.8	65.9	65.8	65.4	64.9	66.1	67.5	69.2	70.1	70.9	66.9
6	72.5	74.3	75.6	76.9	77.9	78.8	79.5	80.4	81.5	82.4	83.3	83.8	78.9
7	83.6	83.0	83.1	82.5	82.2	81.6	80.6	80.1	79.8	77.8	77.4	76.9	80.7
8	76.9	77.4	77.3	76.7	75.6	74.0	73.6	73.1	74.1	73.6	73.2	71.3	74.7
9	69.4	68.6	70.8	70.9	69.8	68.1	66.5	65.9	66.3	66.1	66.4	67.6	68.0
10	68.8	69.0	69.7	70.0	72.0	73.1	75.1	75.9	77.0	78.1	78.9	79.8	73.9
11	81.1	81.4	81.4	81.5	81.8	81.6	81.0	80.8	80.5	80.2	79.7	78.2	80.8
12	79.3	79.1	78.7	78.6	77.9	77.9	76.9	76.6	76.3	75.9	75.7	74.6	77.3
13	74.3	73.9	74.0	73.5	74.0	74.7	75.0	75.2	75.5	75.9	76.1	76.4	74.9
14	76.7	76.9	77.4	77.4	77.3	77.3	77.1	77.0	76.8	76.5	75.6	74.6	76.7
15	74.3	73.9	73.0	73.1	72.5	72.2	71.6	71.3	71.0	70.6	70.1	69.4	71.9
16	69.3	69.7	69.6	69.6	69.8	70.0	70.2	70.7	69.9	70.9	70.3	70.1	70.0
17	69.8	69.4	68.9	68.4	68.3	67.8	67.9	68.0	68.0	68.4	68.2	68.1	68.4
18	68.4	68.5	68.6	68.4	67.9	67.4	66.8	66.4	65.3	63.9	63.9	62.8	66.5
19	61.7	61.1	60.4	59.3	58.5	57.8	57.7	57.5	57.7	57.7	57.7	57.5	58.7
20	58.0	58.1	58.0	58.0	58.4	58.3	58.7	58.8	58.8	59.1	59.0	58.4	58.5
21	58.0	57.2	56.5	56.0	55.7	55.3	55.2	55.3	55.0	54.5	54.3	54.3	55.6
22	54.4	54.4	54.0	54.2	54.6	54.5	55.4	55.7	56.3	57.0	57.9	58.7	55.6
23	59.6	61.1	61.6	61.6	61.7	61.6	61.1	61.2	61.5	61.2	60.9	60.6	61.1
24	60.3	60.6	60.8	60.9	61.9	62.3	63.0	64.0	65.0	66.0	66.7	66.8	63.2
25	66.5	66.8	66.9	67.7	67.5	66.9	66.5	66.0	65.4	64.7	64.0	63.6	66.0
26	63.9	64.3	64.8	65.6	66.7	67.5	68.1	68.8	69.1	69.3	68.4	66.9	66.9
27	64.4	63.5	61.9	58.8	56.9	55.4	55.4	54.9	54.5	53.6	51.4	49.7	56.7
28	48.9	48.1	48.7	47.7	48.3	47.2	46.7	46.9	48.5	50.6	53.1	56.6	49.3
Mean	67.22	67.26	67.38	67.26	67.29	67.12	67.01	67.09	67.22	67.25	67.15	66.86	67.18

1900. March.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	58.9	61.3	62.1	63.4	63.8	64.2	64.8	65.6	66.2	66.5	66.3	66.0	64.1
2	65.9	65.8	65.1	65.1	65.0	64.5	64.4	64.9	65.7	66.7	68.6	68.4	65.8
3	69.7	71.0	72.4	73.2	73.8	73.8	73.9	74.4	74.8	74.9	74.7	74.1	73.4
4	73.5	73.2	72.6	71.9	72.3	70.0	68.6	68.0	67.0	65.8	64.0	63.4	69.2
5	62.5	62.4	61.6	61.1	60.6	59.9	59.6	59.3	58.6	58.3	57.4	56.2	59.8
6	54.8	53.9	53.7	53.1	52.5	53.5	52.6	53.1	53.4	53.1	52.9	53.2	53.3
7	54.6	56.0	57.3	57.8	57.9	58.1	58.7	59.3	59.7	59.6	59.5	58.8	58.1
8	58.2	57.3	55.9	55.1	54.8	55.1	55.0	55.2	55.2	55.5	55.7	55.6	55.7
9	56.2	56.3	56.2	55.7	54.8	54.2	53.8	53.5	52.4	51.5	51.2	49.7	53.8
10	49.7	49.7	49.3	49.4	49.8	50.2	51.1	51.5	52.4	53.3	54.0	55.2	51.3
11	56.7	57.8	58.9	59.9	62.2	63.0	64.1	65.7	66.4	67.9	68.9	70.3	63.5
12	71.6	72.8	74.1	75.5	75.7	76.0	76.0	75.6	74.9	74.2	73.9	73.0	74.4
13	72.7	72.3	72.1	72.3	72.6	72.6	72.9	74.1	74.5	75.4	76.1	77.3	73.7
14	78.9	80.8	81.7	82.4	83.4	84.5	85.7	86.1	86.5	87.3	87.8	88.2	84.4
15	89.0	89.6	89.9	89.9	89.7	90.0	90.2	90.5	90.2	89.6	89.2	89.0	89.7
16	88.5	88.5	88.5	87.7	87.2	86.4	86.0	85.8	84.8	83.8	82.8	81.6	86.0
17	81.1	80.6	80.0	79.6	79.6	79.3	79.5	79.5	79.8	79.7	79.5	78.9	79.8
18	78.3	78.4	78.0	77.9	76.9	76.3	75.7	74.9	74.2	73.5	72.3	70.7	75.6
19	69.1	67.2	65.4	63.0	60.4	58.6	57.0	55.4	53.6	52.6	51.2	50.4	58.7
20	50.4	50.4	51.1	52.5	53.1	53.7	54.7	56.4	58.0	59.3	59.6	60.4	55.0
21	60.9	61.4	62.5	62.3	63.0	62.9	63.3	63.8	63.6	63.5	63.2	61.7	62.7
22	60.9	60.6	59.0	57.9	56.7	56.9	55.7	55.5	55.3	55.7	54.5	56.0	57.1
23	56.2	56.8	57.8	59.6	62.4	65.3	68.4	70.1	72.0	73.2	73.9	74.4	65.8
24	74.6	74.7	74.4	73.8	73.9	73.4	72.8	72.6	72.3	72.0	72.6	72.7	73.3
25	72.8	72.1	73.3	74.0	74.5	74.7	75.2	75.2	74.5	74.6	73.7	73.9	74.0
26	74.2	74.4	75.3	77.1	78.5	80.2	80.7	81.5	81.9	82.9	83.2	82.9	79.4
27	82.6	82.1	81.4	80.0	79.7	78.8	78.4	77.9	77.5	77.1	76.6	76.6	79.1
28	76.0	75.1	75.2	75.2	75.5	75.8	75.8	76.4	75.7	76.1	75.5	75.4	75.6
29	75.1	75.2	74.8	75.0	73.9	73.7	73.2	72.3	71.7	71.0	70.0	69.5	73.0
30	69.0	68.8	67.8	66.9	66.0	65.5	64.7	64.5	63.3	62.6	62.1	62.1	65.3
31	61.7	61.4	60.1	60.0	60.9	59.7	60.2	60.3	60.6	60.6	60.3	60.3	60.5
Mean	67.88	68.06	67.96	68.01	68.10	68.09	68.15	68.35	68.28	68.32	68.10	67.93	68.10

1900. April.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	60.5	61.1	60.9	61.0	60.7	60.8	60.9	61.1	61.2	60.6	60.3	59.7	60.7
2	59.3	59.4	59.5	59.8	58.4	57.6	57.5	57.8	58.2	58.5	58.4	58.1	58.5
3	58.7	59.0	58.8	59.0	59.6	59.1	59.7	60.4	60.5	61.0	61.1	61.6	59.9
4	62.1	63.0	63.3	63.4	63.5	63.8	64.3	64.3	64.5	64.5	64.5	64.0	63.8
5	63.7	63.7	63.6	62.1	62.4	62.0	61.6	61.1	61.9	61.9	62.5	62.8	62.4
6	63.3	63.9	65.0	64.6	65.9	68.0	68.6	69.9	70.5	71.2	71.5	72.2	67.9
7	73.2	73.8	74.5	75.2	75.6	76.1	76.5	76.2	76.5	76.4	76.7	76.9	75.6
8	77.1	78.2	78.7	78.3	78.5	78.6	79.0	78.8	78.3	78.1	77.9	76.9	78.2
9	75.5	73.9	71.7	70.4	69.5	67.9	66.4	64.0	62.0	61.6	60.6	60.8	67.0
10	61.5	60.8	60.3	60.7	61.0	61.7	62.8	63.7	64.3	65.6	66.5	67.3	63.0
11	67.9	68.5	68.6	67.9	67.8	66.9	65.3	63.4	61.3	58.6	56.5	55.1	64.0
12	53.9	53.1	52.8	54 0	55.2	56.9	57.5	58.0	59.0	59.2	58.7	58.5	56.4
13	59.4	59.7	60.1	60.6	61.0	61.2	61.6	61.2	61.7	61.6	61.4	61.4	60.9
14	61.1	61.3	61.3	61.0	60.8	60.6	60.2	60.4	60.7	59.0	58.3	57.2	60.2
15	56.6	55.5	54.4	53.6	54.1	53.8	54.3	54.5	55.1	55.5	55.7	55.7	54.9
16	56.1	56.7	57.2	57.1	57.2	58.0	57.2	56.7	56.8	56.8	56.7	56.3	56.9
17	56.1	56.5	56.7	56.3	56.3	55.7	55.6	54.5	54.0	54.4	54.1	53.4	55.3
18	53.4	53.1	53.5	54.8	54.5	54.8	55.2	56.1	56.9	57.2	57.5	57.5	55.4
19	57.9	58.4	58.7	59.0	59.0	59.7	59.6	60.4	60.6	60.9	60.7	60.6	59.6
20	60.6	61.0	62.8	62.4	63.3	63.1	63.3	65.1	63.9	64.0	64.1	64.1	63.2
21	63.9	64.1	64.7	65.2	65.6	66.2	66.6	67.0	67.5	67.7	68.6	68.6	66.3
22	69.2	69.2	69.4	69.8	70.2	70.4	70.3	70.2	70.3	70.2	70.4	70.3	70.0
23	70.3	71.3	70.2	69.9	69.3	68.9	68.1	67.9	67.5	67.8	65.6	65.5	68.6
24	64.7	64.4	64.0	64.1	64.0	63.5	63.0	62.8	62.3	62.4	62.7	63.0	63.4
25	63.3	63.2	62.8	62.6	62.6	62.6	62.3	62.0	61.7	61.7	61.6	61.6	62.0
26	61.5	62.5	63.0	63.6	64.5	64.8	65.4	66.1	66.0	66.7	67.1	67.5	64.9
27	68.5	69.4	70.1	70.6	70.6	70.9	71.3	71.6	72.3	72.4	72.7	72.7	71.1
28	73.1	72.8	73.4	73.7	73.4	73.2	73.2	73.0	72.8	72.1	71.2	70.7	72.7
29	70.3	69.9	69.1	69.1	68.5	68.0	67.8	67.7	67.1	66.6	66.2	65.7	68.0
30	65.6	65.3	65.2	64.9	64.9	64.8	64.7	- 65.8	64.9	65.1	64.7	65.0	65.1
Mean	63.61	63.76	63.81	63.82	63.93	63.99	64.00	64.06	64.01	63.98	63.82	63.69	63.87

1900. May.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	64.8	65.5	66.1	66.7	66.9	66.8	66.9	67.3	67.2	67.2	66.7	66.3	66.5
2	66.3	66.8	66.8	66.7	66.7	66.4	66.4	66.5	66.5	*66.3*	66.1	65.9	66.5
3	65.9	65.3	65.9	65.3	65.2	64.8	64.9	64.5	64.3	64.2	63.6	63.1	64.8
4	62.4	62.0	62.2	62.4	62.1	60.5	60.2	59.7	58.7	58.6	57.9	57.3	60.3
5	57.4	*57.6*	57.7	58.4	58.8	59.4	59.5	59.8	60.0	60.2	60.8	61.0	59.2
6	61.2	60.7	61.0	60.7	60.2	59.9	60.1	59.9	60.5	59.6	59.0	59.1	60.2
7	58.4	57.9	57.5	58.4	59.3	59.4	60.0	60.2	60.6	60.8	61.0	61.3	59.6
8	62.0	63.2	63.6	63.7	64.6	65.0	65.4	66.4	66.9	67.5	68.4	69.3	65.5
9	70.0	*70.1*	*70.2*	70.2	70.1	70.0	70.5	70.5	70.0	69.9	69.6	69.4	70.0
10	69.2	69.3	69.1	69.5	69.2	69.5	69.9	70.1	69.5	70.5	70.2	70.5	69.7
11	70.4	71.2	71.4	71.0	70.7	70.4	70.3	69.9	69.6	69.1	68.8	68.5	70.1
12	68.1	67.2	66.8	65.9	65.1	64.3	63.3	62.8	62.1	61.0	60.0	59.2	63.8
13	59.0	58.9	58.9	*58.6*	58.3	58.3	58.6	58.5	58.6	59.0	59.2	59.4	58.8
14	60.1	61.3	61.7	62.1	62.5	62.6	62.4	61.4	62.2	61.6	61.2	60.8	61.7
15	60.1	59.5	58.7	58.0	57.6	57.1	56.7	57.2	57.5	*57.6*	57.9	58.5	58.0
16	59.2	60.1	61.0	61.7	62.2	62.5	63.1	63.6	64.2	65.2	65.0	65.2	62.8
17	65.7	66.5	66.6	65.9	66.1	65.6	65.4	64.7	64.6	64.0	64.1	64.0	65.3
18	63.8	63.3	62.9	62.7	61.9	60.7	59.6	57.6	56.1	55.7	54.9	54.3	59.5
19	53.8	53.6	53.3	53.5	53.5	53.7	54.1	54.3	54.8	57.4	58.6	59.4	55.0
20	60.4	61.6	61.8	61.4	61.5	62.0	61.2	60.8	61.4	60.9	61.4	61.6	61.3
21	61.8	61.8	62.1	61.8	63.1	63.6	63.6	64.1	64.7	64.9	64.8	64.4	63.4
22	64.6	64.4	63.8	63.5	63.0	62.8	62.5	62.4	61.9	61.5	61.4	61.5	62.9
23	61.4	*61.6*	61.7	62.2	63.1	63.8	63.9	64.1	64.3	64.4	64.2	64.3	63.3
24	64.4	*64.4*	64.3	64.1	64.3	64.5	64.8	65.1	65.1	65.4	65.2	65.4	64.9
25	65.8	66.4	65.8	66.7	66.7	66.7	66.7	66.6	66.5	66.1	66.1	66.1	66.4
26	66.3	*66.2*	66.1	66.3	66.3	66.3	66.1	66.1	65.9	66.0	65.4	65.6	66.1
27	65.9	66.0	66.7	66.6	66.4	66.0	65.9	65.2	64.5	63.9	63.1	62.5	65.2
28	62.3	62.1	61.6	61.2	60.8	60.5	60.3	60.0	59.9	59.7	59.2	59.2	60.6
29	59.2	59.2	59.0	59.3	59.1	58.8	58.6	58.6	58.8	58.5	58.5	58.5	58.8
30	58.5	58.7	59.2	59.4	59.6	59.8	59.8	60.0	60.4	60.8	60.7	61.2	59.8
31	61.1	*61.1*	61.1	61.2	61.2	61.0	60.1	60.0	59.4	58.9	57.9	57.6	60.1
Mean	62.89	63.02	63.05	63.07	63.10	62.99	62.93	62.83	62.80	62.79	62.61	62.59	62.89

1900. June.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	56.7	56.8	56.3	56.0	56.0	55.6	55.5	56.0	56.6	56.9	57.1	57.4	56.4
2	57.4	57.8	58.1	58.3	57.8	57.2	56.5	56.3	56.0	55.9	55.6	56.0	56.9
3	55.8	55.7	56.0	56.2	56.2	56.1	56.1	56.4	56.8	57.0	57.6	58.0	56.5
4	58.5	59.4	59.9	59.8	60.2	60.2	60.9	61.5	61.4	61.3	61.2	61.3	60.5
5	61.1	60.9	61.0	61.0	61.1	61.3	61.4	62.1	62.1	62.5	62.5	62.9	61.7
6	63.1	63.1	63.7	64.0	64.2	64.1	64.0	64.0	63.8	63.7	63.7	63.2	63.7
7	63.1	63.3	63.7	63.8	63.9	64.0	64.3	64.2	64.4	64.5	64.5	64.4	64.0
8	64.4	64.1	64.3	64.3	64.3	64.1	64.2	64.3	64.2	64.1	64.0	64.0	64.2
9	64.2	63.9	64.1	64.8	64.4	64.3	64.2	63.9	63.8	63.5	63.4	62.9	63.9
10	62.8	62.6	62.4	62.6	62.5	62.3	62.2	62.0	61.7	61.2	60.5	59.4	61.9
11	58.7	57.8	57.3	56.0	55.6	54.4	54.2	53.9	53.8	53.5	53.4	53.3	55.2
12	53.6	54.0	54.3	54.3	54.5	54.5	54.7	54.5	54.3	54.2	53.8	53.8	54.2
13	54.0	54.4	54.7	55.7	55.6	55.6	56.0	56.0	56.1	56.4	56.3	56.3	55.6
14	56.4	57.3	56.5	57.0	56.5	56.1	55.9	55.6	56.0	55.9	55.9	56.0	56.3
15	56.2	55.3	55.1	55.5	55.8	55.7	56.5	57.2	57.2	57.5	57.5	57.4	56.4
16	57.4	58.4	59.6	59.5	59.7	59.6	59.7	59.6	59.8	59.7	58.9	58.4	58.4
17	57.9	56.0	56.4	56.0	55.0	54.5	53.9	53.3	52.8	52.3	51.5	50.8	54.2
18	50.5	50.7	50.9	51.6	51.6	52.0	53.0	53.6	54.1	54.8	55.2	55.6	52.8
19	55.8	56.6	56.8	57.3	57.0	57.3	57.6	57.7	57.7	58.3	58.5	58.9	57.5
20	59.2	59.3	59.6	60.8	60.9	60.9	61.1	61.0	61.2	60.2	59.6	59.1	60.2
21	58.3	57.2	56.9	56.7	56.4	56.3	55.5	54.8	54.2	53.9	53.5	53.4	55.6
22	53.5	53.2	53.2	53.1	53.1	53.0	53.1	53.0	53.2	53.2	53.5	53.5	53.2
23	53.8	53.8	54.7	55.7	57.4	56.8	57.3	57.8	58.4	58.6	58.8	59.7	56.9
24	59.7	60.1	60.3	61.0	61.0	62.1	61.3	62.7	62.8	62.9	63.1	63.1	61.7
25	63.0	63.3	62.6	63.9	63.9	64.2	66.4	64.5	64.8	64.9	65.1	65.3	64.3
26	65.5	66.1	66.2	66.3	66.2	65.6	66.2	65.5	65.2	65.0	64.3	64.2	65.5
27	64.0	64.2	64.1	64.2	64.2	64.0	63.6	63.8	63.7	63.5	62.9	62.7	63.7
28	62.8	63.0	63.2	62.7	63.1	62.4	63.1	63.1	63.1	63.0	62.7	62.5	62.9
29	62.4	62.6	62.3	62.6	62.3	61.8	61.6	61.4	61.1	60.8	60.5	60.5	61.7
30	60.4	59.9	59.6	59.1	58.7	58.3	58.3	58.4	58.6	58.6	58.7	58.7	58.9
Mean	59.01	59.03	59.13	59.33	59.30	59.14	59.28	59.27	59.30	59.26	59.13	59.09	59.19

1900. July.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	58.9	59.1	59.2	59.6	59.6	59.6	59.8	60.1	60.3	60.5	60.6	60.5	59.8
2	60.5	60.6	60.8	60.8	60.7	60.4	60.0	59.8	59.5	59.5	59.0	58.6	60.0
3	58.1	58.6	57.5	57.2	56.4	55.6	54.9	54.6	54.4	54.1	54.1	53.9	55.8
4	53.9	53.8	53.9	54.1	54.0	54.4	54.5	54.8	55.2	55.8	55.9	56.0	54.7
5	56.3	56.4	56.7	57.0	57.0	57.0	57.1	57.2	57.2	57.3	57.2	57.2	57.0
6	56.8	56.3	56.2	56.3	55.9	55.5	55.4	55.5	56.0	57.4	56.8	57.3	56.3
7	57.9	58.2	57.9	59.3	59.2	59.4	59.6	59.7	59.9	59.7	59.6	59.6	58.3
8	59.9	59.9	60.1	60.3	60.1	60.1	60.1	60.0	59.9	59.8	59.5	59.3	59.9
9	59.4	59.4	58.9	58.6	58.1	57.5	57.1	56.3	55.5	55.0	54.5	54.3	57.1
10	54.4	54.2	54.7	54.9	55.0	55.0	55.0	54.9	54.8	54.7	54.5	54.6	54.7
11	54.8	54.9	55.4	55.8	55.3	55.4	55.7	55.8	56.1	55.9	55.9	56.1	55.6
12	56.1	56.3	56.6	56.9	56.9	57.1	57.3	57.3	57.4	57.2	57.1	57.2	56.9
13	57.3	56.7	56.3	55.6	54.6	54.0	53.6	52.8	52.3	52.0	51.2	50.5	53.9
14	50.1	49.7	49.5	49.5	49.5	49.3	49.8	50.0	50.6	51.2	51.4	51.4	50.2
15	51.7	52.1	53.5	53.4	53.3	53.1	52.8	52.7	52.4	52.3	51.6	51.0	52.5
16	50.5	49.9	49.9	50.0	49.9	49.8	49.6	49.5	49.6	49.7	49.6	49.8	49.8
17	50.3	50.7	51.3	51.9	51.9	52.0	52.0	52.2	52.6	53.4	53.4	54.0	52.1
18	54.1	55.3	57.2	57.6	57.6	58.0	57.8	58.5	59.1	59.0	58.6	58.4	57.6
19	58.0	56.6	55.0	54.2	52.9	52.1	52.3	52.4	53.6	54.9	55.9	56.5	54.5
20	57.4	58.3	58.8	60.3	60.4	60.6	63.4	64.0	64.2	64.1	64.3	64.3	61.7
21	64.6	64.7	64.7	65.0	65.3	65.9	66.5	66.6	66.8	66.5	67.0	67.4	65.9
22	66.5	66.6	66.8	66.5	67.0	67.4	67.6	67.9	67.2	66.6	66.7	66.1	66.9
23	66.1	66.1	65.7	65.8	65.5	65.4	65.1	64.7	64.6	64.6	64.5	63.9	65.2
24	63.6	64.1	64.2	63.8	63.7	63.4	63.4	63.4	63.1	62.9	62.8	62.9	63.4
25	63.1	64.2	64.7	63.0	62.5	62.2	61.9	62.0	61.9	61.8	62.0	61.7	62.6
26	61.6	61.8	61.9	61.3	61.0	60.6	60.3	60.2	60.0	59.3	59.1	59.3	60.5
27	59.4	59.6	59.5	59.5	58.3	59.2	59.3	59.2	58.9	58.8	58.8	58.5	59.1
28	58.6	58.5	58.4	58.3	58.2	58.2	58.0	58.3	58.2	58.4	58.4	58.0	58.3
29	57.8	57.6	57.9	57.3	56.9	56.1	55.4	55.6	56.3	55.5	55.4	55.3	56.4
30	55.9	56.2	57.4	58.6	59.2	59.9	61.7	60.7	60.6	60.8	60.7	60.6	59.4
31	60.3	60.2	60.1	60.9	60.8	61.0	61.1	60.7	60.9	60.9	60.5	60.7	60.7
Mean	57.87	57.95	58.09	58.28	57.96	57.91	58.00	57.98	58.04	58.05	57.95	57.90	58.00

1900. August.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 744.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	*60.6*	60.6	60.7	60.8	60.8	60.8	60.7	60.5	60.4	60.2	60.1	60.0	60.5
2	59.8	59.8	60.3	60.8	61.1	61.2	61.1	61.1	60.9	60.7	60.5	60.4	60.6
3	60.2	59.6	59.4	59.1	58.6	58.0	57.4	56.7	55.9	55.6	55.1	55.0	57.6
4	54.5	53.6	53.3	53.1	53.1	52.1	51.7	51.4	51.3	51.3	51.0	50.1	52.2
5	49.7	48.6	48.0	47.6	46.6	46.6	46.0	46.0	46.2	46.2	47.0	47.2	47.2
6	48.3	49.1	50.6	51.6	52.1	52.8	53.1	54.1	53.8	54.0	53.9	53.9	52.3
7	53.8	53.8	53.5	53.3	53.1	52.8	52.8	53.2	53.1	53.6	53.4	53.6	53.3
8	53.9	55.0	55.2	56.2	56.1	56.0	56.3	56.6	56.5	56.7	56.8	56.9	56.0
9	57.2	57.3	57.0	57.5	57.3								57.3
Mean*	55.10	55.01	55.13	55.31	55.16	55.04	54.89	54.95	54.76	54.79	54.73	54.64	54.96

* 1st to 8th.

1900. September.*

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
11							54.7	55.2	55.3	55.5	55.4	55.4	55.2
12	55.5	55.7	55.7	56.3	56.2	56.3	56.4	56.8	57.1	57.5	57.6	58.0	56.6
13	58.3	*58.7*	59.1	59.0	59.2	59.2	59.3	59.4	59.9	59.7	59.8	59.8	59.3
14	59.6	59.4	58.9	58.9	58.5	57.6	57.2	56.5	54.9	52.9	50.9	48.5	56.2
15	46.5	44.6	43.1	41.9	40.6	39.5	39.7	40.9	42.2	43.7	45.1	46.5	42.9
16	47.8	49.9	51.8	53.3	53.8	54.5	55.1	55.9	56.5	56.3	57.2	56.1	54.0
17	56.2	55.8	55.2	54.4	54.2	53.9	*54.3*	54.4	54.4	53.7	53.0	53.0	54.4
18	52.5	52.4	51.9	51.3	51.1	50.8	55.6	50.1	49.7	49.4	49.1	49.1	51.1
19	48.2	48.3	48.0	47.5	46.7	47.4	48.0	48.4	48.8	48.8	48.4	49.0	48.1
20	48.9	49.0	48.7	48.2	*48.2*	48.3	48.8	*49.8*	49.9	50.0	50.3	50.5	49.3
21	51.1	51.7	51.8	52.2	52.8	53.2	53.6	54.2	54.3	54.6	55.3	56.2	53.4
22	56.7	57.3	57.6	58.0	58.6	59.0	59.3	59.8	60.3	60.5	60.9	61.4	59.1
23	61.6	62.1	62.4	63.2	63.8	64.6	64.8	65.6	65.8	65.9	66.3	66.7	64.4
24	66.2	66.6	67.0	67.4	67.2	67.1	67.0	67.3	67.9	67.6	67.0	66.6	67.1
25	66.5	66.1	64.8	64.6	63.7	62.5	61.7	61.2	60.5	59.8	59.1	58.1	62.4
26	57.9	57.2	56.7	56.2	55.5	55.1	55.0	55.0	54.8	54.1	53.2	52.7	55.3
27	52.4	52.1	51.8	50.9	50.0	49.4	48.9	48.9	48.8	48.1	48.0	47.7	49.8
28	47.7	47.9	48.3	47.4	48.7	49.5	49.7	50.6	51.8	52.5	52.7	52.8	50.0
29	53.1	53.6	53.9	54.4	54.4	54.5	54.4	55.0	55.5	55.9	55.9	*55.3*	54.7
30	56.7	56.9	57.2	57.9	57.7	59.3	59.9	60.5	61.4	61.9	62.7	62.9	59.6
Mean **	55.35	55.48	55.40	55.32	55.26	55.42	55.90	55.88	56.19	56.09	56.07	56.08	55.70

* The 11th to 17th under way, 18th to 30th Gaasefjord.

** 18th to 30th.

1900. October.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	63.5	64.1	64.4	64.6	65.0	65.0	64.6	65.0	64.9	64.8	64.1	64.3	64.5
2	64.3	64.4	64.5	64.6	64.8	65.0	65.4	65.7	66.0	66.2	66.4	67.0	65.4
3	67.1	67.5	67.7	67.3	67.4	67.6	67.5	67.8	67.8	68.0	68.0	68.4	67.7
4	*68.6*	68.8	68.8	68.7	68.7	68.8	68.8	68.6	68.5	68.0	67.6	67.4	68.4
5	68.0	67.6	67.5	67.2	67.5	67.5	67.9	68.1	68.2	67.9	67.9	68.2	67.8
6	68.4	68.7	68.8	68.7	69.0	69.3	69.3	69.5	70.0	69.8	70.0	70.0	69.3
7	70.6	70.4	70.5	70.2	70.2	70.0	69.5	69.4	68.8	68.2	67.6	66.1	69.3
8	65.1	63.8	62.9	61.3	60.0	57.0	56.1	55.1	54.4	52.7	51.1	49.5	57.4
9	48.6	47.8	46.9	46.9	46.5	45.9	45.2	45.1	44.7	44.6	44.4	44.2	45.9
10	45.1	44.9	45.3	45.6	46.3	45.7	47.1	47.9	48.3	48.5	48.6	49.2	46.9
11	49.5	50.0	50.6	51.1	51.4	51.8	51.9	52.8	53.6	54.1	54.4	54.5	52.1
12	55.2	56.5	*57.5*	58.6	59.3	60.0	60.6	61.5	62.0	62.0	61.8	61.4	59.7
13	61.2	60.3	60.4	60.6	60.9	61.1	61.1	61.8	61.7	61.7	61.7	61.9	61.1
14	62.2	62.3	62.2	61.9	61.8	61.7	61.7	61.8	61.9	62.1	62.1	62.5	62.0
15	62.6	62.8	63.1	62.9	63.3	63.6	63.6	63.5	63.6	63.5	63.3	63.3	63.3
16	62.9	62.0	61.7	61.5	*61.5*	61.6	61.1	*60.9*	60.7	60.7	60.6	60.4	61.3
17	60.4	60.4	60.3	60.0	60.0	60.1	60.1	*60.2*	60.2	60.0	60.1	60.0	60.2
18	59.8	59.7	60.6	59.7	59.9	59.5	59.4	59.3	59.2	58.5	57.3	57.2	59.2
19	56.9	56.5	55.9	54.7	54.4	53.8	53.7	53.3	53.0	52.4	51.5	50.9	53.9
20	50.0	49.2	47.6	47.0	45.8	45.0	43.9	43.6	43.3	44.1	44.5	45.7	45.8
21	46.3	46.6	48.0	49.3	50.3	51.4	52.7	53.7	55.7	56.6	57.5	57.9	52.2
22	58.8	59.3	59.1	58.4	57.8	57.1	55.9	55.4	54.5	53.4	51.5	49.3	55.9
23	47.9	46.3	44.6	43.1	41.0	39.9	39.7	40.2	40.5	40.8	40.8	41.3	42.2
24	42.1	43.9	44.7	44.9	45.4	46.0	46.1	46.6	47.4	48.4	48.8	49.2	46.1
25	49.8	50.1	50.7	50.8	50.5	49.9	49.7	49.3	49.0	48.8	48.0	47.7	49.5
26	47.1	47.1	46.9	47.7	49.3	49.8	50.6	51.6	52.1	52.6	52.8	53.1	50.1
27	53.6	53.7	54.2	54.0	54.3	54.2	54.4	54.5	54.5	54.7	54.8	55.3	54.3
28	55.6	55.9	56.5	57.1	57.6	58.6	59.1	59.6	*59.9*	60.2	60.7	60.6	58.5
29	60.7	60.9	60.2	59.4	58.4	57.1	55.5	54.2	52.7	50.1	49.8	49.1	55.7
30	48.5	48.7	49.2	49.7	50.2	52.1	53.3	54.7	56.1	57.4	58.3	59.2	53.1
31	60.3	60.1	60.2	60.6	60.9	61.0	61.1	61.2	61.4	61.1	60.0	60.5	60.7
Mean	57.44	57.43	57.47	57.36	57.40	57.33	57.31	57.48	57.57	57.48	57.29	57.27	57.40

1900. November.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	60.4	60.7	60.3	60.2	59.8	59.6	59.8	60.1	60.0	59.7	59.7	59.5	60.0
2	59.2	59.3	58.9	58.6	58.4	58.3	57.9	57.9	57.1	56.1	55.9	56.3	57.8
3	56.8	56.4	56.1	55.8	55.8	55.5	55.4	55.4	54.2	54.1	53.5	53.6	55.2
4	53.6	53.9	53.8	53.7	53.7	54.4	54.4	54.4	54.2	54.0	53.8	54.0	54.0
5	54.0	54.2	54.8	54.6	55.1	55.4	55.9	56.6	57.0	57.1	57.7	58.1	55.9
6	58.9	60.4	60.1	61.0	61.2	61.7	62.5	63.1	63.6	63.8	63.8	64.2	62.0
7	64.9	65.3	65.5	65.2	65.9	66.0	66.4	66.8	66.7	67.1	67.2	67.2	66.2
8	67.5	67.7	68.0	68.1	68.4	69.2	69.9	70.8	71.7	71.9	72.2	72.6	69.8
9	73.3	74.1	74.3	74.7	74.7	74.8	75.6	75.3	75.2	75.5	75.5	75.2	74.9
10	75.4	75.3	74.9	75.0	75.0	75.0	74.7	75.2	75.4	75.1	74.8	74.8	75.1
11	74.2	74.3	73.8	72.8	72.7	72.4	72.1	71.2	70.9	70.4	69.9	69.3	72.0
12	68.4	68.6	68.0	68.1	67.9	67.7	67.8	67.8	67.9	68.5	68.4	68.1	68.1
13	68.1	68.3	68.2	68.6	69.0	68.8	68.2	68.1	67.5	66.7	66.5	65.6	67.8
14	65.7	65.5	64.8	64.5	64.2	63.7	63.5	62.9	61.8	61.8	61.5	61.6	63.5
15	61.2	60.4	60.8	60.9	61.2	60.8	60.9	60.5	60.2	60.0	59.4	59.1	60.5
16	58.6	58.1	57.8	57.7	58.3	58.8	59.0	58.6	58.0	57.6	57.1	56.8	58.0
17	56.8	56.6	56.4	56.7	56.7	56.3	55.7	55.5	55.0	55.0	54.3	53.6	55.7
18	53.2	52.6	51.9	51.4	51.1	51.0	51.3	51.5	51.2	51.5	51.4	51.5	51.6
19	51.1	51.9	52.1	52.4	52.8	53.0	52.9	53.3	53.6	53.9	54.1	54.8	53.0
20	55.5	56.5	57.1	58.2	58.9	59.4	60.3	61.0	61.4	60.9	60.4	60.2	59.2
21	59.2	58.9	57.6	56.5	55.9	55.3	54.9	55.6	55.0	55.2	55.2	55.6	56.2
22	56.2	56.9	57.4	57.8	58.3	58.9	60.2	60.7	61.1	61.2	62.3	63.3	59.5
23	63.6	63.9	64.4	63.9	63.6	63.1	62.8	62.9	62.9	63.0	62.4	62.7	63.3
24	62.2	62.4	62.2	61.8	61.7	61.4	61.1	61.0	61.2	60.5	60.0	60.3	61.3
25	60.1	60.2	60.4	60.7	60.6	60.9	61.6	62.7	63.4	64.2	64.3	64.8	62.0
26	65.4	65.6	65.6	66.0	65.4	65.6	65.9	65.7	65.3	65.5	65.9	65.6	65.6
27	65.8	65.8	65.8	65.4	64.9	64.6	64.7	64.3	64.4	64.6	65.2	65.4	65.1
28	65.7	66.0	66.5	66.0	66.0	65.4	64.8	64.1	63.3	61.9	60.7	59.5	64.2
29	58.4	57.5	56.5	55.4	55.6	54.9	55.0	55.7	55.9	56.2	56.2	56.2	56.1
30	56.4	56.4	56.6	57.5	58.1	58.4	59.6	60.4	61.3	62.4	63.6	64.9	59.6
Mean	61.66	61.79	61.69	61.64	61.70	61.69	61.83	61.97	61.88	61.85	61.76	61.81	61.77

1900. December.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1 75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	66.4	66.6	67.7	68.2	68.7	69.2	69.2	69.2	68.9	68.2	66.7	65.8	67.9
2	64.6	62.2	62.1	61.1	60.1	58.8	59.2	58.8	58.8	58.5	58.4	58.7	60.1
3	59.0	59.1	59.2	60.4	61.5	62.7	64.2	65.7	66.5	67.3	68.4	69.5	63.6
4	69.6	70.0	71.0	71.3	71.2	71.5	71.6	72.0	72.1	71.8	71.1	71.0	71.2
5	71.2	71.2	70.9	70.1	70.1	69.6	69.8	69.6	69.1	69.0	68.8	68.6	69.8
6	68.3	68.4	67.9	67.5	67.1	66.6	65.8	65.5	64.5	63.6	62.5	61.9	65.8
7	61.0	60.1	59.4	59.1	58.5	57.4	56.9	56.4	56.2	55.2	54.4	53.7	57.4
8	53.8	54.0	53.5	54.1	54.6	55.3	55.9	56.9	57.5	58.0	58.2	58.3	55.8
9	59.2	59.7	60.4	60.6	61.6	62.4	62.7	63.4	64.9	64.3	64.2	64.3	62.3
10	64.8	65.4	65.7	66.2	66.8	66.9	67.3	68.3	69.2	69.4	69.9	70.3	67.5
11	70.6	70.4	71.2	71.7	72.5	72.4	72.4	72.7	73.1	72.7	72.6	72.4	72.0
12	72.1	71.6	71.7	71.0	70.1	71.0	70.7	70.9	70.8	70.4	70.2	70.0	70.9
13	69.7	69.6	69.2	68.9	68.4	67.7	67.6	67.2	66.0	65.7	64.8	64.4	67.4
14	63.5	63.0	61.9	61.3	60.6	59.8	59.2	58.4	57.1	56.0	55.2	54.2	59.2
15	53.9	52.9	51.9	51.7	51.4	51.0	50.5	50.4	50.2	50.1	49.7	49.2	51.1
16	49.3	49.9	50.5	51.5	51.6	53.5	54.7	55.8	55.7	55.8	56.5	56.2	53.4
17	56.7	57.9	58.3	58.4	59.0	59.5	59.6	59.9	59.9	59.9	60.4	61.2	59.2
18	61.6	62.1	62.1	62.3	62.6	63.4	64.6	65.4	65.6	65.4	65.8	65.6	63.9
19	65.8	65.8	65.3	64.7	64.9	65.3	65.6	65.6	65.3	65.2	65.1	64.8	65.3
20	64.6	63.8	63.9	63.8	63.3	63.4	63.7	63.8	63.3	62.6	62.9	61.8	63.4
21	61.5	61.2	60.6	59.9	59.5	59.5	59.7	60.3	59.8	60.2	60.3	60.3	60.2
22	60.3	60.6	60.7	60.9	60.9	61.2	61.4	61.7	62.1	62.9	62.2	62.2	61.4
23	62.3	62.6	63.1	63.2	63.7	63.2	63.6	64.0	64.0	64.0	64.0	63.6	63.4
24	63.9	63.8	63.8	63.3	63.0	62.6	62.7	62.1	62.0	61.5	61.1	60.2	62.5
25	59.3	58.6	57.7	57.2	56.6	55.8	54.8	53.9	53.1	51.5	50.8	49.8	54.9
26	49.3	49.2	49.9	49.4	49.8	50.4	50.4	50.8	52.0	52.1	52.1	52.3	50.6
27	52.1	52.8	52.9	53.0	52.8	52.8	53.3	53.9	54.5	54.9	55.1	55.3	53.6
28	54.4	55.7	55.7	55.4	55.0	55.7	55.6	56.3	56.5	57.3	57.7	57.8	56.1
29	58.1	58.8	58.9	59.2	60.0	60.3	60.4	60.4	60.8	60.6	60.8	60.9	59.9
30	60.9	59.6	60.5	60.3	60.2	59.9	59.1	58.4	57.9	57.2	57.0	56.7	59.0
31	55.9	55.3	54.8	54.9	54.7	55.1	54.9	54.8	55.1	55.3	55.9	55.9	55.2
Mean	61.41	61.35	61.37	61.31	61.32	61.42	61.52	61.69	61.69	61.50	61.38	61.19	61.43

1901. January.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	56.1	56.7	56.7	56.7	56.8	56.8	56.9	57.3	57.2	57.4	56.8	57.4	56.9
2	56.9	56.8	57.1	57.1	57.4	57.6	57.7	57.3	56.7	55.4	54.2	53.3	56.5
3	52.4	51.7	50.2	48.4	46.6	44.8	43.3	42.0	40.3	39.2	38.1	37.3	44.5
4	36.7	36.6	36.1	36.2	36.3	37.1	38.3	39.7	41.2	42.3	42.6	42.8	38.8
5	43.5	44.1	44.1	43.6	43.6	43.6	43.3	43.9	44.1	44.3	43.8	43.9	43.8
6	43.9	43.8	43.9	43.1	42.3	41.7	41.5	41.8	42.1	42.7	43.7	43.9	42.9
7	44.6	45.7	46.3	47.4	48.4	49.2	50.3	51.3	52.6	53.2	53.4	52.8	49.6
8	52.5	53.7	52.3	51.7	51.3	51.2	51.1	51.6	52.1	52.3	52.9	54.3	52.3
9	54.6	53.4	54.0	54.1	54.5	54.2	54.8	55.3	55.6	56.0	56.0	55.7	54.9
10	55.6	55.7	55.6	55.6	55.1	54.3	54.1	54.0	53.8	53.6	53.6	53.2	54.5
11	53.2	53.9	53.8	54.5	54.8	55.6	55.7	56.3	56.6	56.6	56.8	56.9	55.4
12	57.0	57.1	56.8	56.7	56.9	57.0	57.1	57.4	58.2	58.4	59.0	60.2	57.7
13	60.7	59.8	60.1	60.9	60.9	61.0	61.3	61.4	61.3	61.4	60.9	60.4	60.8
14	60.7	60.2	59.8	59.2	58.2	58.1	57.9	57.4	56.2	55.9	56.2	55.8	58.0
15	56.5	56.6	57.2	58.6	59.7	60.4	60.8	61.2	61.5	61.6	61.6	61.8	59.8
16	61.6	61.8	61.8	62.1	62.1	62.3	62.4	61.7	61.3	60.7	59.7	59.2	61.4
17	58.6	58.5	58.5	57.8	58.1	58.7	59.4	60.0	61.4	61.8	62.8	63.7	59.9
18	64.2	65.1	65.7	66.3	66.7	67.4	67.2	67.5	66.8	66.3	65.7	64.9	66.2
19	63.7	63.1	62.6	61.0	60.1	58.7	57.0	56.1	55.5	53.9	52.2	50.6	57.9
20	49.6	47.6	46.4	45.4	43.6	42.6	42.5	42.8	42.9	43.6	44.0	44.7	44.3
21	45.2	46.0	46.4	46.8	47.0	46.7	47.8	48.4	49.4	49.5	50.2	50.9	47.9
22	51.9	53.1	53.5	54.0	54.5	54.5	54.8	54.9	54.9	54.1	53.3	52.4	53.8
23	52.3	51.5	50.9	50.5	50.4	50.2	50.4	51.1	50.1	51.3	51.6	52.7	51.1
24	52.8	52.9	54.4	56.1	57.1	58.2	60.0	61.6	62.8	64.3	64.7	65.4	59.2
25	66.1	66.8	67.7	68.0	68.5	68.8	69.3	69.8	70.1	69.5	69.1	69.1	68.6
26	69.3	68.6	68.4	68.2	68.3	68.4	68.6	69.3	70.1	70.8	71.8	73.2	69.6
27	74.2	78.0	78.6	78.8	80.2	80.9	81.8	82.7	83.5	84.5	84.5	84.3	81.0
28	84.3	84.4	84.6	84.7	84.6	83.8	83.3	82.6	81.9	81.0	79.2	77.8	82.7
29	76.3	75.4	73.4	72.4	70.9	70.2	69.6	69.7	69.3	69.7	69.7	70.0	71.4
30	69.7	70.0	68.9	68.1	68.0	66.7	66.1	65.4	65.2	63.1	62.2	61.4	66.2
31	61.2	60.7	60.3	61.6	63.3	63.3	63.5	63.5	63.3	62.7	61.1	59.9	62.0
Mean	57.61	57.72	57.62	57.60	57.62	57.55	57.67	57.90	58.00	57.97	57.79	57.74	57.73

1901. February.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	*58.5*	57.2	56.8	56.8	57.1	58.4	60.9	62.6	64.5	66.1	67.1	67.0	61.1
2	68.1	68.1	67.8	66.7	66.7	65.9	66.3	66.6	68.3	69.6	71.1	72.5	68.1
3	74.5	76.1	77.7	79.3	80.1	80.6	81.0	81.1	81.0	80.8	79.6	79.3	79.3
4	78.9	78.1	78.1	77.1	76.7	76.1	75.3	75.0	75.4	75.5	74.6	74.1	76.2
5	73.4	72.8	72.7	72.1	71.8	71.5	71.0	70.5	69.8	68.6	66.8	66.8	70.7
6	66.3	66.8	67.1	67.5	67.7	68.2	68.9	68.4	69.8	69.8	69.3	69.4	68.3
7	69.5	69.0	68.7	68.7	68.9	68.6	68.7	69.4	69.7	70.1	70.9	71.1	69.4
8	72.4	73.1	75.1	74.9	75.5	76.1	76.5	76.8	77.4	77.7	77.5	77.1	75.8
9	76.7	76.6	75.8	75.5	74.2	71.9	69.9	68.2	67.1	64.9	63.1	62.1	70.5
10	60.7	59.7	59.6	59.0	58.2	56.9	55.8	54.9	54.1	54.3	54.3	55.8	56.9
11	57.9	60.5	62.0	63.2	65.4	66.4	67.7	68.5	69.2	69.8	69.6	68.9	65.8
12	68.6	68.3	68.2	67.8	67.9	68.1	68.3	69.2	69.9	70.0	70.6	71.1	69.0
13	71.0	71.7	72.1	72.6	72.4	72.7	72.0	72.6	73.1	71.8	70.6	70.5	71.9
14	69.5	67.4	67.4	65.5	62.8	60.0	58.3	56.3	55.4	56.5	57.4	58.3	61.2
15	59.3	60.1	60.3	63.5	65.7	66.9	67.7	68.3	68.5	68.5	68.2	67.8	65.4
16	67.6	67.3	67.5	67.5	67.7	68.2	68.9	69.1	69.3	69.3	69.1	69.2	68.4
17	68.8	68.3	68.1	68.1	68.6	69.1	70.2	70.8	71.8	72.7	73.6	73.8	70.3
18	74.8	74.9	74.6	73.7	72.6	71.5	70.1	68.4	67.5	66.2	65.9	66.1	70.5
19	66.8	68.1	69.8	71.0	72.2	74.0	74.8	76.4	76.7	77.3	77.6	77.9	73.6
20	78.0	78.7	79.3	78.8	79.3	79.2	79.3	79.5	79.5	78.6	78.2	77.5	78.8
21	76.7	77.3	77.2	77.0	76.4	76.5	75.5	76.0	75.5	75.1	74.9	74.1	76.0
22	73.3	73.5	73.7	72.4	71.2	70.2	69.4	68.8	69.6	68.5	66.9	66.4	70.3
23	*64.5*	62.7	61.4	60.6	61.1	60.8	61.3	61.9	62.7	63.3	63.6	63.6	62.3
24	63.6	63.3	63.5	63.9	63.5	63.3	62.8	62.6	62.1	60.9	60.2	58.5	62.4
25	57.9	56.1	54.9	54.0	53.2	52.4	52.7	53.8	53.3	52.9	52.3	52.0	53.8
26	51.2	50.7	50.2	49.7	49.3	49.2	49.2	49.2	49.6	49.2	49.2	49.3	49.7
27	48.8	48.3	48.2	47.9	48.0	47.5	47.4	47.0	46.3	46.0	45.3	44.7	47.1
28	43.7	43.7	42.8	42.5	42.4	41.9	41.2	42.4	42.7	42.9	42.5	43.4	42.7
Mean	66.46	66.37	66.45	66.33	66.31	66.15	66.11	66.23	66.42	66.32	66.07	66.01	66.27

1901. March.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	43.1	43.1	42.9	43.2	44.0	44.3	44.4	44.5	44.8	45.6	45.9	45.8	44.3
2	46.9	47.7	48.2	48.8	49.0	49.2	49.3	49.4	49.2	49.5	49.6	48.9	48.8
3	48.9	49.6	49.7	49.9	49.7	49.7	49.9	50.5	50.5	50.9	51.1	50.9	50.1
4	50.8	51.6	51.7	52.3	53.5	54.4	55.5	56.7	57.7	58.0	58.6	58.8	55.0
5	59.0	59.0	58.6	57.5	56.7	56.4	56.5	56.8	56.5	56.9	56.5	56.2	57.2
6	56.6	57.3	57.2	58.5	58.7	59.4	59.9	60.9	61.2	60.8	60.3	59.4	59.2
7	58.3	56.8	55.6	53.3	50.7	48.7	47.3	46.3	46.3	46.2	46.2	46.0	50.2
8	46.9	48.3	49.5	50.3	51.8	52.3	53.6	55.0	56.5	57.8	58.6	59.3	53.3
9	60.2	62.2	63.2	63.8	63.9	64.9	65.4	66.2	66.9	67.0	67.3	67.2	64.9
10	67.4	67.9	67.6	67.9	67.8	67.3	67.7	67.7	67.4	67.5	67.0	67.1	67.5
11	66.8	67.0	66.9	66.5	66.6	66.8	67.3	67.8	68.0	68.4	68.6	68.5	67.4
12	68.8	69.0	69.1	69.5	69.6	69.5	69.8	69.9	70.2	70.6	71.2	71.4	69.1
13	71.5	71.6	72.1	71.8	72.2	71.7	71.4	71.3	71.1	70.1	69.6	69.3	71.1
14	68.5	68.2	67.8	67.3	66.9	66.8	66.4	66.2	65.8	65.8	65.5	65.7	66.7
15	65.7	65.6	65.7	65.4	65.2	65.1	65.6	65.9	66.0	66.0	65.9	66.0	65.7
16	65.9	66.5	66.4	66.3	66.5	66.7	66.7	67.0	67.0	66.9	66.8	65.9	66.6
17	66.5	66.9	66.8	67.0	67.4	67.8	67.8	67.8	67.4	67.5	67.8	67.2	67.3
18	67.3	67.1	66.7	66.4	66.1	65.1	65.3	65.9	65.8	65.8	65.6	65.7	66.1
19	66.6	66.7	67.1	67.0	67.0	67.1	67.7	67.6	67.6	67.4	67.0	67.1	67.2
20	67.0	67.6	67.8	67.1	66.8	66.9	66.9	66.8	66.5	66.2	65.5	65.5	66.7
21	66.4	67.8	68.4	69.3	70.2	71.0	71.8	73.0	73.7	74.1	74.5	74.5	71.2
22	75.5	75.8	76.1	77.1	77.2	76.9	76.9	77.3	77.1	77.0	76.6	76.0	76.6
23	75.6	75.5	75.1	74.6	74.4	74.4	73.6	73.6	73.5	73.3	73.0	72.3	74.1
24	72.2	72.3	72.4	72.0	71.5	70.7	70.3	70.0	69.7	69.1	68.2	67.9	70.5
25	67.4	67.3	67.1	67.3	67.3	67.0	66.9	66.9	67.1	66.8	66.5	66.4	67.0
26	66.6	66.7	67.1	67.7	67.9	67.8	67.7	67.8	68.0	67.4	67.3	66.7	67.4
27	66.9	66.4	65.8	65.7	65.7	65.3	65.4	64.9	65.1	65.3	65.5	66.3	65.7
28	66.7	66.8	66.9	67.2	67.9	68.5	68.6	68.6	68.1	67.8	67.7	67.2	67.7
29	66.8	65.9	64.0	63.3	63.4	63.5	63.3	64.0	64.2	65.0	65.3	66.9	64.6
30	67.8	68.6	70.0	69.0	69.1	69.4	69.5	69.8	69.5	69.4	69.3	68.8	69.2
31	69.8	70.7	71.5	72.1	72.8	73.8	73.7	74.0	74.0	73.8	73.6	73.5	72.8
Mean	63.69	63.98	64.03	64.04	64.11	64.14	64.26	64.52	64.59	64.64	64.59	64.46	64.25

1901. April.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	73.4	73.6	73.1	72.6	72.6	72.4	72.0	71.2	70.2	69.6	68.7	67.3	71.4
2	66.7	65.5	64.5	62.6	62.4	61.2	60.9	60.3	59.9	59.2	58.5	58.5	61.7
3	58.4	58.2	58.2	58.1	58.2	58.5	59.2	60.0	60.6	60.8	61.4	61.7	59.4
4	62.8	64.2	64.9	65.6	66.5	67.1	67.3	68.0	68.6	68.6	68.5	68.7	66.7
5	*68.5*	*68.2*	68.0	67.9	67.0	65.5	64.7	63.5	62.0	59.8	58.1	56.6	64.2
6	56.1	56.1	55.6	55.1	55.1	54.8	54.8	54.9	55.4	55.7	55.5	56.6	55.5
7	58.3	59.4	60.4	61.7	62.6	63.5	64.2	64.9	65.2	65.6	65.7	67.2	63.2
8	67.7	67.2	67.6	68.1	68.5	68.8	69.8	69.5	69.8	70.2	70.6	70.6	69.0
9	70.8	71.6	71.7	72.2	72.4	72.5	72.7	73.0	73.0	72.9	72.4	71.7	72.2
10	71.4	71.3	70.8	70.0	69.6	68.2	67.5	65.8	64.1	61.8	60.3	58.6	66.6
11	57.6	57.1	57.7	60.1	62.1	63.3	64.4	64.8	65.2	65.5	64.9	64.7	62.3
12	64.4	64.0	63.4	62.3	62.2	61.7	61.1	60.1	59.2	59.2	58.7	58.5	61.2
13	58.7	59.7	60.2	59.6	59.4	59.3	59.7	59.7	59.5	59.6	59.3	59.1	59.5
14	58.7	58.7	58.9	59.4	59.2	59.1	59.0	58.9	58.5	58.7	58.6	59.0	58.9
15	59.1	59.9	60.5	60.7	61.8	62.6	63.5	64.4	64.8	65.5	66.1	66.4	62.9
16	66.9	67.3	67.4	67.6	67.6	67.7	67.6	67.6	67.7	67.6	67.2	67.5	67.5
17	67.6	67.8	67.8	67.2	67.2	67.2	67.4	67.4	67.5	68.0	67.1	66.7	67.4
18	67.0	67.2	68.2	67.4	67.1	67.0	67.1	67.5	67.6	67.7	67.2	67.2	67.4
19	67.2	68.2	66.9	66.8	66.4	65.7	65.0	64.8	64.4	63.8	62.7	62.1	65.3
20	61.7	61.6	61.4	61.3	61.3	61.1	61.1	61.6	62.1	62.4	62.9	63.7	61.9
21	64.5	64.9	65.8	66.5	67.5	68.1	68.8	70.4	70.8	71.2	71.4	71.7	68.5
22	71.9	73.3	73.7	73.8	73.9	73.9	74.3	74.3	74.0	74.0	73.8	73.7	73.7
23	73.7	73.0	73.0	72.9	73.0	72.7	72.4	72.7	72.5	72.4	71.9	71.6	72.7
24	71.5	*71.8*	72.1	71.6	71.4	71.3	71.2	71.2	70.8	70.7	69.9	69.8	71.1
25	69.4	69.3	68.2	67.3	67.0	66.4	66.1	65.6	65.1	65.3	64.5	64.6	66.6
26	64.6	64.3	64.3	64.5	64.8	64.8	64.6	64.5	64.5	64.2	64.5	64.7	64.5
27	64.8	64.2	64.2	63.8	63.8	63.6	63.5	63.5	63.2	63.0	63.1	64.2	63.7
28	*64.5*	64.7	63.9	64.4	65.0	64.9	65.0	65.1	65.0	65.3	65.1	65.1	64.8
29	65.5	65.9	66.2	65.8	66.0	66.0	66.0	66.4	66.4	66.3	66.2	66.1	66.1
30	66.2	67.2	67.2	66.4	66.4	66.5	66.5	66.2	66.0	65.8	65.2	64.6	66.2
Mean	65.32	65.51	65.53	65.44	65.60	65.51	65.58	65.59	65.45	65.35	65.00	64.95	65.40

1901. May.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	64.2	64.0	64.0	63.3	63.4	62.9	63.0	63.6	63.3	63.5	63.5	64.4	63.6
2	66.2	66.1	66.3	66.6	66.6	66.5	66.1	65.8	65.4	64.4	63.7	63.4	65.6
3	63.0	62.0	61.6	61.2	62.3	62.4	62.8	63.4	64.4	64.2	64.1	64.4	63.0
4	65.3	65.7	66.2	66.2	66.6	66.4	66.1	66.2	66.3	66.4	66.3	66.2	66.2
5	66.3	66.7	66.8	67.1	67.3	67.5	68.2	68.7	69.1	69.4	68.8	69.1	67.9
6	69.3	69.8	69.7	69.8	69.8	69.4	69.4	69.0	68.6	67.6	66.5	65.7	68.7
7	64.6	63.7	62.9	62.4	61.9	61.7	61.4	61.6	62.0	62.7	62.9	63.5	62.6
8	63.6	63.3	63.2	64.0	64.0	64.4	64.6	64.3	64.3	64.6	64.2	64.3	64.1
9	64.4	65.1	65.3	65.1	65.3	65.1	65.3	65.6	65.8	65.8	65.9	65.9	65.4
10	65.9	65.1	65.2	66.3	66.7	66.8	66.9	67.0	67.2	67.5	67.5	67.5	66.6
11	67.5	67.9	67.8	67.6	67.5	67.2	67.0	66.6	66.0	65.4	64.9	64.4	66.7
12	64.4	63.9	63.6	63.8	63.7	64.7	64.8	65.1	65.4	65.7	65.6	65.9	64.7
13	66.3	66.0	65.7	66.0	65.6	65.2	65.1	64.9	64.1	63.4	62.8	62.2	64.8
14	62.3	62.0	61.9	61.3	61.7	61.7	61.6	61.1	61.2	61.5	61.3	62.0	61.6
15	62.3	62.8	63.4	63.9	64.9	66.3	67.2	68.0	68.1	67.9	67.3	67.6	65.8
16	67.9	68.9	69.1	69.7	70.4	71.6	72.3	73.0	73.1	72.9	72.7	72.7	71.2
17	73.2	72.7	72.1	71.6	71.4	71.4	71.3	71.3	70.4	69.8	68.6	68.3	71.0
18	67.6	66.2	65.5	64.0	63.8	62.3	62.5	61.2	60.8	60.5	59.8	59.5	62.6
19	59.2	59.0	59.0	58.5	58.1	57.8	57.7	57.9	58.3	58.4	58.4	58.6	58.4
20	59.4	60.0	60.3	61.2	62.2	62.4	62.8	63.0	63.4	63.7	63.6	62.8	62.1
21	64.0	64.2	64.4	64.0	63.6	62.8	62.7	62.5	62.9	63.3	63.7	64.0	63.5
22	64.4	64.4	64.4	64.3	63.5	63.7	63.9	64.5	66.3	67.4	68.1	68.8	65.3
23	69.6	69.7	70.1	70.1	69.8	69.0	67.8	67.9	66.4	65.9	64.1	63.9	67.9
24	64.2	65.1	65.8	66.3	67.6	69.2	69.8	70.4	70.3	70.1	69.5	69.0	68.1
25	68.5	67.3	67.1	66.2	65.5	64.8	64.3	63.9	63.5	63.1	62.5	63.1	65.0
26	63.1	61.8	61.7	61.3	61.5	61.3	61.0	61.1	61.1	61.2	61.2	61.4	61.4
27	61.9	62.1	62.0	61.6	62.0	61.7	61.3	60.9	60.1	59.5	58.9	58.6	60.9
28	59.3	60.2	61.2	62.7	63.1	64.4	65.2	65.7	66.4	66.8	67.5	68.4	64.2
29	68.8	69.0	69.5	70.0	70.3	70.3	70.2	69.9	69.3	67.9	67.3	66.6	69.1
30	66.4	65.9	65.4	65.5	65.7	66.3	67.3	67.4	67.8	68.5	69.5	70.1	67.2
31	70.8	71.0	71.5	71.0	70.7	70.6	70.3	69.5	68.7	67.4	65.7	64.6	69.3
Mean	65.26	65.21	65.25	65.25	65.37	65.41	65.48	65.52	65.41	65.37	65.05	65.06	65.30

1901. June.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	63.2	61.8	60.5	59.2	58.0	56.6	55.1	54.0	52.8	51.4	50.2	49.4	56.0
2	49.0	48.2	48.2	47.8	47.9	48.1	48.4	49.0	49.2	49.9	49.9	50.5	48.8
3	50.7	51.2	51.3	51.8	51.6	51.4	51.4	51.0	51.0	51.3	51.0	51.2	51.2
4	51.2	51.3	51.5	52.8	53.0	52.9	52.9	52.8	53.1	53.7	54.4	54.7	52.9
5	55.2	55.8	56.6	56.7	57.2	57.5	57.5	57.7	57.5	57.1	56.6	56.2	56.8
6	56.2	55.6	55.3	55.1	54.3	53.4	53.8	54.0	53.3	53.7	54.5	55.2	54.5
7	56.0	57.6	58.2	59.2	59.7	59.8	59.9	60.0	60.2	60.2	59.7	59.7	59.2
8	59.6	59.7	59.4	59.2	59.8	60.1	60.3	60.3	60.4	60.9	61.0	61.6	60.2
9	61.8	62.4	62.9	63.5	63.7	64.5	64.7	65.0	65.2	65.4	65.4	65.8	64.2
10	66.0	65.1	65.0	64.9	64.8	64.7	64.7	65.2	65.2	65.4	65.2	65.3	65.1
11	65.4	65.1	65.1	65.4	65.3	65.2	65.2	65.4	65.2	64.3	64.2	64.0	64.9
12	64.1	64.3	64.7	64.3	64.4	64.2	64.1	63.5	62.9	62.4	61.9	61.8	63.6
13	61.6	60.6	60.3	60.0	59.7	59.6	59.4	58.9	58.3	58.1	57.7	57.4	59.3
14	57.5	57.3	57.4	58.3	58.3	58.9	59.1	59.6	59.7	59.7	60.0	61.3	58.9
15	61.8	62.6	62.1	63.9	64.9	65.6	66.3	66.2	67.2	66.8	66.3	66.2	65.0
16	65.1	64.4	63.5	63.0	62.3	62.2	62.3	62.3	62.2	61.8	61.5	61.3	62.7
17	60.9	60.8	60.6	60.7	60.4	59.8	59.9	59.8	59.1	58.4	57.3	56.7	59.5
18	56.2	55.5	55.1	54.8	54.3	53.8	53.4	53.2	53.0	52.2	52.4	52.7	53.9
19	53.0	53.4	54.0	54.0	54.8	55.2	55.5	56.4	56.9	57.7	57.6	56.9	55.5
20	57.1	58.5	58.4	58.1	58.0	57.3	56.8	56.2	56.1	55.5	54.7	53.5	56.7
21	52.8	52.4	52.1	51.7	51.8	51.5	52.0	52.5	53.2	54.1	54.5	54.4	52.8
22	54.3	54.4	54.8	55.3	55.6	55.1	54.8	54.0	53.4	52.4	51.4	50.8	53.9
23	49.9	49.5	49.3	48.6	49.5	50.1	50.4	51.2	52.0	52.4	53.0	53.3	50.8
24	53.4	53.3	53.7	53.9	54.0	54.2	54.4	54.7	54.9	55.1	55.2	55.3	54.3
25	55.3	55.2	55.1	55.3	55.5	55.8	56.5	56.8	57.3	57.7	58.1	58.7	56.4
26	59.2	59.4	59.4	59.9	59.6	59.8	59.4	59.5	59.3	59.0	58.6	58.1	59.3
27	57.5	57.7	57.5	57.3	56.9	56.9	56.8	57.1	57.4	57.6	57.7	58.3	57.4
28	59.0	59.5	59.9	60.8	61.0	61.0	61.1	61.3	61.0	60.4	60.4	60.0	60.5
29	59.9	58.7	58.7	58.8	58.2	58.4	58.5	59.1	59.2	59.3	59.4	59.7	59.0
30	59.9	60.2	60.4	60.8	61.3	61.7	62.1	62.1	62.3	61.9	61.9	61.6	61.4
Mean	57.76	57.72	57.70	57.84	57.86	57.84	57.89	57.96	57.62	57.86	57.72	57.72	57.79

1901. July.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	61.4	62.0	61.5	60.8	60.7	60.6	60.7	60.5	60.5	59.9	59.6	59.1	60.6
2	59.1	59.2	59.4	59.7	59.8	60.0	60.2	60.5	60.3	60.4	59.9	59.5	59.8
3	59.6	59.5	59.7	59.4	59.8	59.5	59.8	60.4	60.8	61.2	61.6	62.1	60.3
4	62.5	63.2	63.4	63.5	63.6	63.5	63.9	64.3	64.4	64.4	64.4	64.3	63.8
5	64.1	64.3	64.1	63.6	63.0	62.5	62.1	61.9	61.3	60.6	59.6	59.4	62.2
6	59.4	60.1	60.5	61.2	61.0	61.1	61.0	61.0	60.5	61.0	60.7	60.1	60.6
7	59.3	59.0	58.7	58.8	58.8	58.7	58.2	57.9	57.7	57.4	56.7	55.7	58.1
8	54.7	53.6	53.8	52.5	51.9	51.3	51.6	51.5	51.9	52.4	52.8	53.1	52.6
9	53.4	53.8	54.1	54.1	54.3	54.5	54.9	55.0	55.5	55.8	55.9	56.1	54.8
10	56.5	56.8	56.9	57.1	57.1	56.8	56.8	57.1	57.1	57.3	57.3	57.3	57.0
11	57.6	57.6	57.7	57.9	58.0	58.1	58.4	58.3	58.6	58.7	58.8	59.0	58.2
12	59.1	59.5	59.6	59.3	59.3	59.3	59.6	59.8	59.9	60.0	60.1	60.1	59.6
13	60.3	60.6	60.6	60.3	60.4	60.3	60.4	60.6	60.4	60.3	60.3	60.3	60.4
14	60.3	60.4	60.6	60.5	60.4	60.4	60.4	60.5	60.4	59.9	59.1	58.7	60.1
15	58.5	57.9	57.6	57.4	57.0	57.3	57.8	58.2	58.2	58.2	58.1	57.6	57.8
16	57.4	56.9	56.9	56.3	56.4	56.3	56.8	57.1	57.3	57.3	57.2	56.7	56.9
17	56.8	56.9	57.0	57.3	57.2	57.2	57.4	57.4	57.8	57.6	56.8	56.6	57.2
18	56.8	57.2	56.7	56.6	56.4	56.2	56.2	56.2	56.2	56.0	55.7	55.8	56.3
19	55.8	55.7	55.1	55.5	54.8	54.3	53.6	53.1	53.1	53.0	52.8	52.8	54.1
20	53.1	53.4	53.8	54.0	54.2	54.3	54.4	54.9	55.3	55.5	55.5	55.9	54.5
21	56.3	57.0	57.2	57.9	58.3	58.5	59.2	59.5	59.6	59.6	58.9	59.2	58.4
22	59.2	59.2	59.1	59.6	59.5	59.9	59.9	59.9	60.3	60.6	60.6	60.6	59.9
23	60.9	60.7	60.7	60.6	60.5	59.7	59.6	59.1	58.3	57.2	55.5	54.0	58.9
24	53.9	53.1	52.8	54.3	54.8	54.4	54.9	55.0	55.2	56.1	56.4	57.1	54.8
25	57.6	58.1	59.2	59.3	59.6	59.7	60.1	60.1	60.3	59.9	59.3	59.0	59.4
26	58.6	58.0	57.5	57.2	56.6	56.1	55.7	54.9	54.4	54.2	53.4	53.3	55.8
27	53.3	53.0	52.7	52.3	52.0	51.6	51.2	50.7	49.8	49.4	48.6	48.7	51.1
28	49.6	49.7	50.1	50.4	50.8	51.2	51.9	52.4	53.0	53.5	53.9	54.5	51.8
29	54.6	54.9	55.4	55.5	55.7	55.9	56.3	56.6	56.6	56.8	56.7	56.7	56.0
30	56.4	57.0	57.4	57.4	57.5	57.5	57.5	57.8	58.0	58.3	58.1	58.2	57.6
31	58.6	59.0	59.1	59.0	58.9	58.8	58.8	58.6	58.4	58.3	58.1	57.8	58.6
Mean	57.57	57.65	57.70	57.75	57.69	57.60	57.72	57.74	57.78	57.77	57.50	57.40	57.66

1901. August.

Gaasefjord. 1st to 12th: $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 740.8. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	57.7	57.2	58.1	57.3	57.3	56.8	57.0	56.4	55.9	56.5	55.7	55.5	56.8
2	56.0	55.6	55.8	55.8	55.9	55.8	56.0	56.6	56.7	56.6	56.4	56.5	56.2
3	57.1	57.6	57.7	58.2	58.2	58.4	58.5	58.7	58.9	59.0	58.8	58.7	58.3
4	58.5	58.9	58.6	58.8	58.7	58.9	59.0	59.6	60.0	60.2	59.6	60.2	59.3
5	59.9	59.1	58.6	57.8	57.8	57.8	58.5	60.0	60.4	61.1	61.4	61.7	59.5
6	62.6	63.0	63.6	63.6	63.4	63.3	63.2	62.7	62.5	62.5	62.2	61.8	62.9
7	61.1	60.4	59.4	59.0	58.9	58.7	58.8	58.7	59.1	59.7	59.9	60.2	59.5
8	60.1	60.5	60.4	60.1	59.9	59.5	59.7	59.2	58.8	58.5	58.1	57.5	59.4
9	56.8	56.2	55.6	55.3	54.8	54.0	53.1	52.5	51.6	51.1	50.4	49.8	53.4
10	48.7	47.9	47.2	46.3	45.3	45.4	45.0	45.0	45.0	45.1	44.7	45.2	45.9
11	45.3	46.1	46.3	46.2	47.1	47.8	48.2	48.8	49.5	50.2	50.7	51.1	48.1
12	51.6	52.4	53.3	52.8	53.0	53.5	53.8	54.5	55.7	56.3	57.0	57.9	54.3
13*	58.8	59.9	60.8	61.4	61.6	61.7	62.6	62.7	63.5	63.8	63.4	63.7	62.0
14	63.6	63.4	63.4	62.7	62.0	60.9	60.2	59.9	59.4	58.9	58.1	57.4	60.8
15	57.5	57.5	57.5	57.2	57.0	56.6	56.9	56.9	56.7	56.7	56.5	56.4	57.0
16	56.6	56.7	56.7	57.0	57.0	57.2	56.9	56.7	56.6	56.3	55.6	55.6	56.6
17	55.6	55.7	55.7	54.9	56.2	56.1	56.3	57.0	57.3	57.1	57.4	57.4	56.4
18	57.8	58.1	58.5	58.8	58.8	58.3	58.3	58.4	58.4	58.3	58.2	58.4	58.4
19	58.2	58.1	58.0	58.1	58.7	58.7	58.9	59.3	59.5	59.7	59.8	60.1	58.9
20	59.9	59.9	60.2	60.2	60.0	59.9	59.5	59.4	59.1	58.9	58.6	58.3	59.5
21	57.7	57.5	57.6	57.3	57.9	57.9	58.3	58.9	59.0	59.2	59.4	59.7	58.4
22	59.9	60.1	60.1	60.9	61.4	61.6	62.1	62.5	62.6	63.3	63.2	63.4	61.8
23	63.8	63.9	64.2	64.2	64.4	64.3	63.4	64.0	63.8	63.7	63.3	63.1	63.8
24	62.9	62.6	62.2	61.5	61.5	61.2	60.9	60.4	59.8	59.5	59.1	58.5	60.8
25	57.9	57.6	57.3	56.7	56.5	56.1	56.1	56.0	55.3	55.2	55.1	55.1	56.2
26	55.3	55.1	55.3	55.5	56.2	56.2	56.0	55.9	55.7	55.7	56.1	55.8	55.7
27	55.9	56.1	55.8	55.9	56.1	56.1	56.2	56.7	56.7	57.0	57.3	57.6	56.5
28	57.9	58.0	58.2	58.5	58.9	59.5	60.0	60.1	61.0	61.2	61.3	61.2	59.7
29	62.1	62.3	62.8	62.8	62.7	62.3	62.2	61.9	61.5	61.0	60.3	59.5	61.8
30	58.8	58.2	57.7	55.2	54.8	54.1	53.6	53.1	52.8	52.2	51.1	50.7	54.4
31	51.2	51.0	51.3	51.4	51.5	52.0	53.3	54.3	55.5	56.9	57.1	57.7	53.6
Mean	57.63	57.63	57.67	57.46	57.53	57.44	57.50	57.64	57.69	57.79	57.61	57.60	57.60

* From the 13th of August to the 5th of September under way southwards in the Gaasefjord.

1901. September.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	58.2	59.8	60.3	60.1	60.8	60.4	59.9	59.4	59.0	58.5	56.7	55.6	59.1
2	54.5	53.6	52.9	52.0	51.1	49.9	48.8	48.1	48.6	47.6	46.5	46.2	50.0
3	45.2	46.1	46.2	46.2	46.5	46.5	46.9	47.2	47.3	47.2	46.9	46.5	46.6
4	*46.9*	47.3	47.7	48.1	48.4	49.2	49.7	50.4	51.6	52.6	53.1	53.8	49.9
5	54.0	55.0	55.7	56.0	56.5	56.9	57.2	57.8	58.6	59.4	60.0	60.4	57.3
6	60.2	60.1	60.2	59.4	59.5	59.4	59.0	59.1	59.1	58.9	58.9	58.9	59.4
7	59.2	59.3	59.3	59.4	59.6	59.8	60.0	60.1	60.4	60.4	60.5	60.8	59.9
8	60.6	60.7	61.1	60.9	61.0	60.8	60.8	60.9	60.6	60.5	60.4	60.4	60.7
9	60.6	60.4	60.6	60.6	61.1	61.5	61.6	61.8	62.0	61.8	61.3	61.2	61.2
10	61.0	60.9	60.8	60.2	59.4	59.2	58.9	58.3	57.9	58.4	57.8	57.1	59.2
11	56.4	56.1	54.0	54.1	53.5	52.9	51.6	50.3	49.8	*48.8*	47.2	45.6	51.7
12	44.9	45.2	44.9	44.6	44.5	44.2	44.2	44.3	44.6	44.6	44.7	44.8	44.6
13	44.8	44.9	45.2	45.7	45.8	45.6	45.7	45.7	45.4	45.1	44.6	44.5	45.3
14	44.3	43.9	43.8	43.7	43.6	44.0	44.2	44.9	45.5	45.9	46.2	46.6	44.7
15	47.4	48.5	49.1	49.4	49.9	50.3	51.0	52.2	53.0	53.3	53.4	53.5	50.9
16	53.8	54.5	54.9	55.3	55.6	55.8	55.9	56.4	56.8	57.0	57.4	57.8	55.9
17	58.1	58.1	58.2	58.2	58.7	58.6	58.9	58.7	59.3	59.8	59.6	59.6	58.8
18	59.8	60.2	59.9	60.8	61.5	61.9	61.9	62.6	63.4	63.6	63.6	63.9	61.9
19	64.1	64.6	64.4	64.1	64.6	64.6	64.2	64.0	64.1	64.0	63.5	63.4	64.1
20	63.0	63.0	62.8	63.0	62.7	62.7	62.8	62.5	62.7	63.7	64.0	64.2	63.1
21	64.3	64.6	65.1	65.2	65.8	65.9	66.3	67.1	66.6	66.9	66.9	66.9	66.0
22	67.0	67.0	67.0	67.6	67.4	67.2	67.2	67.2	66.9	67.0	66.5	66.4	67.0
23	66.1	66.3	65.7	65.7	65.3	65.0	64.9	64.7	64.5	64.2	64.1	63.9	65.0
24	63.8	63.7	63.5	63.3	63.8	64.0	64.2	64.6	64.9	65.3	65.3	65.5	64.3
25	66.5	67.6	67.9	67.9	68.1	68.4	68.5	68.4	68.1	67.4	66.4	65.9	67.6
26	65.2	64.6	63.9	62.9	62.2	61.9	61.6	61.8	61.6	61.3	61.3	61.2	62.5
27	61.6	61.5	62.0	62.5	63.2	62.9	63.2	63.7	63.7	63.3	62.7	62.3	62.7
28	62.0	61.2	61.1	60.5	59.6	59.2	58.8	58.4	57.8	56.6	56.0	55.3	58.9
29	54.8	53.4	53.9	53.0	52.5	52.1	52.0	51.9	51.6	51.4	51.0	50.8	52.4
30	50.8	50.8	51.1	51.1	51.3	51.9	52.1	52.7	53.2	53.5	53.4	53.6	52.1
Mean	57.30	57.43	57.44	57.38	57.45	57.42	57.40	57.51	57.62	57.59	57.33	57.22	57.42

1901. October.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. Sea-Level. St. Gr. GC = + 1.75 at 742.7. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	53.8	54.2	54.9	55.6	56.3	56.7	57.2	58.0	58.4	58.9	58.7	58.6	56.8
2	58.8	59.4	59.8	59.6	59.4	59.7	59.8	60.8	60.9	61.1	61.5	62.2	60.3
3	61.5	61.9	61.8	60.8	60.1	58.9	58.3	57.7	56.5	55.7	54.9	54.5	58.6
4	53.9	53.8	53.9	53.7	54.4	54.9	55.9	56.8	57.8	58.6	59.2	60.1	56.1
5	61.1	61.6	62.2	62.9	63.5	64.0	64.4	64.9	65.1	65.5	65.6	66.0	63.9
6	66.2	66.3	66.9	66.3	66.8	66.5	66.4	66.2	65.8	65.8	65.3	64.8	66.1
7	64.4	64.0	63.6	63.3	63.0	62.5	62.3	62.1	61.7	61.6	61.4	61.6	62.6
8	61.2	61.0	60.7	59.7	59.2	58.6	57.9	57.9	57.4	56.8	56.4	56.4	58.6
9	56.1	55.6	55.4	55.7	55.6	56.0	56.4	56.9	57.2	57.6	57.7	57.8	56.5
10	58.1	58.7	58.4	58.4	58.3	58.5	59.1	59.6	59.4	60.1	60.3	60.7	59.1
11	61.0	62.1	62.9	63.4	64.2	64.9	65.9	66.6	67.1	67.3	67.4	67.4	65.0
12	67.8	67.6	67.2	66.8	66.3	66.0	66.2	66.2	65.7	65.3	64.5	64.6	66.2
13	64.6	64.7	64.2	64.3	64.3	64.2	64.1	64.2	64.1	63.5	62.7	62.4	63.9
14	61.5	61.2	60.6	59.8	59.2	58.9	58.7	58.4	58.0	57.6	57.2	56.7	59.0
15	56.7	56.7	57.0	56.3	57.2	57.7	58.7	61.2	61.2	63.2	64.1	65.3	59.6
16	66.0	66.4	66.9	67.8	68.1	68.3	68.5	68.6	69.0	69.1	68.7	68.1	69.0
17	68.2	68.2	68.5	68.2	66.6	66.5	66.2	66.8	67.3	67.4	68.2	68.3	67.5
18	68.7	68.9	69.1	69.9	70.2	70.5	70.7	71.0	71.4	71.8	71.8	71.9	70.5
19	72.2	72.5	72.5	72.3	72.2	71.9	71.4	71.2	70.4	70.0	69.2	67.9	71.1
20	67.4	66.8	65.9	65.2	64.3	63.7	63.1	62.5	61.9	61.1	60.6	60.3	63.6
21	60.0	60.1	59.8	59.7	59.9	60.3	60.2	60.4	60.5	60.6	60.7	60.8	60.3
22	60.5	60.7	60.9	61.1	61.7	61.6	62.0	62.5	62.5	62.3	62.5	62.9	61.8
23	63.3	63.7	63.7	63.4	63.7	64.1	64.4	64.4	64.1	63.5	63.6	63.2	63.8
24	63.7	63.4	63.1	63.0	62.7	62.6	63.0	63.0	62.8	62.4	62.0	62.1	62.8
25	61.8	61.4	60.4	60.0	59.8	59.7	59.8	59.6	58.8	58.0	57.8	57.2	59.5
26	57.6	57.4	57.3	57.0	57.0	57.1	57.8	57.9	58.4	58.4	58.6	58.5	57.8
27	59.4	59.6	59.9	60.4	60.6	61.3	62.6	63.0	63.8	64.0	64.4	64.5	62.0
28	64.7	64.6	64.1	63.3	62.6	62.1	61.2	60.6	60.2	59.9	59.2	59.1	61.8
29	59.3	59.1	58.6	58.3	58.4	57.0	56.6	55.1	54.0	53.8	54.5	54.2	56.6
30	53.7	53.1	53.3	53.6	53.8	53.4	53.8	54.1	54.4	54.6	55.1	55.3	54.0
31	55.6	55.7	57.5	57.1	57.3	58.0	58.8	59.5	60.1	60.4	60.7	61.1	58.5
Mean	61.57	61.63	61.65	61.51	61.51	61.49	61.66	61.86	61.80	61.80	61.76	61.79	61.67

1901. November.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	61.4	61.7	62.2	62.2	62.2	62.5	61.7	61.1	60.7	59.7	58.4	57.6	61.0
2	56.9	56.2	55.0	54.0	52.9	52.0	51.0	50.2	49.4	47.9	47.2	46.1	51.6
3	45.3	46.0	47.4	48.0	48.5	49.0	49.5	50.5	51.5	52.4	53.9	55.4	49.8
4	56.6	57.4	58.2	59.0	60.4	60.6	60.7	60.3	60.4	59.2	59.2	59.5	59.3
5	59.1	59.7	59.6	59.7	60.0	60.8	62.4	63.1	63.4	64.0	65.3	66.3	62.0
6	67.0	67.4	67.7	68.8	68.9	69.9	70.4	71.2	72.0	72.2	72.8	73.1	70.1
7	73.5	73.3	72.7	72.7	72.2	71.0	70.0	69.7	69.1	68.2	68.3	67.5	70.7
8	66.5	65.9	64.7	63.8	62.6	62.5	62.7	62.9	63.4	62.9	62.3	62.4	63.6
9	61.8	61.8	61.6	60.8	60.6	60.2	60.7	60.7	61.1	61.2	61.7	62.5	61.2
10	63.5	64.0	64.7	65.1	66.2	66.5	67.2	67.7	67.3	66.0	65.1	63.6	65.6
11	62.9	62.3	61.2	60.4	60.0	59.4	58.8	59.2	60.4	62.3	63.6	64.2	61.2
12	64.8	64.3	64.4	63.6	63.3	61.5	60.4	59.3	56.2	55.2	54.5	53.6	60.1
13	53.8	54.5	57.0	59.6	61.5	63.2	64.2	65.7	66.1	66.3	66.6	67.5	62.2
14	68.3	70.1	71.3	72.1	73.2	74.4	75.4	76.7	77.4	78.1	78.3	78.9	74.5
15	79.5	80.6	81.0	81.4	82.0	82.0	82.0	81.6	81.0	80.2	79.8	79.0	80.8
16	78.2	76.8	75.1	74.1	73.1	71.6	70.5	69.4	67.7	66.1	63.9	62.3	70.7
17	60.3	58.8	57.5	56.3	55.3	54.3	53.6	53.6	53.4	53.3	53.4	53.3	55.3
18	53.3	52.8	52.8	52.8	52.7	52.8	52.6	52.6	52.5	53.1	53.4	53.3	52.9
19	53.4	53.6	53.7	53.7	53.8	53.7	53.2	53.1	52.5	52.1	51.4	50.8	52.9
20	50.1	49.5	48.8	48.2	47.9	47.9	48.1	49.5	51.0	52.1	53.0	53.6	50.0
21	55.0	55.8	56.5	58.1	59.9	61.2	62.5	63.3	64.4	65.2	65.8	66.1	61.1
22	66.6	66.5	66.2	66.0	66.0	65.9	65.7	65.4	64.8	64.3	63.8	63.2	65.4
23	62.8	62.2	61.5	60.4	60.3	59.7	59.5	59.3	59.1	58.6	58.3	58.5	60.0
24	58.8	59.1	59.7	60.2	66.5	61.4	62.1	62.8	63.0	63.4	63.5	63.4	62.0
25	63.0	64.3	64.0	63.6	63.2	62.9	62.5	62.1	61.4	60.1	59.5	59.4	62.2
26	59.9	60.8	61.7	61.7	62.3	63.2	64.2	65.5	66.5	67.1	67.8	68.2	64.1
27	68.9	70.7	71.5	71.9	72.2	72.7	73.1	73.5	73.4	73.4	73.0	72.7	72.3
28	72.9	72.5	72.4	71.8	72.0	72.2	72.5	73.0	73.0	72.3	72.2	70.8	72.3
29	70.6	70.2	69.0	68.0	67.1	66.5	65.6	64.7	64.4	63.6	63.4	63.2	66.4
30	63.5	63.7	63.8	64.0	65.3	66.5	66.6	66.6	66.6	66.6	66.0	65.1	65.4
Mean	62.61	62.75	62.76	62.73	63.07	62.93	62.98	63.14	63.10	62.90	62.85	62.70	62.88

1901. December.

Gaasefjord. $\varphi = 76^{\circ}40'$ N. $\lambda = 88^{\circ}38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	65.1	63.5	63.0	62.2	61.7	61.2	60.6	60.2	59.9	59.8	59.5	58.8	61.3
2	58.7	58.5	58.2	57.9	57.5	57.2	56.9	56.3	55.7	54.9	54.5	54.2	56.7
3	54.6	54.8	55.3	55.7	55.9	56.2	56.9	56.8	56.6	56.4	56.4	57.2	56.1
4	57.8	58.4	58.9	59.4	59.7	60.2	60.7	61.0	61.4	61.5	61.4	61.3	60.1
5	61.5	61.4	61.4	61.6	61.7	61.6	61.4	61.5	60.5	59.9	59.2	58.5	60.9
6	58.4	57.8	57.2	56.8	56.4	55.9	55.3	54.4	53.8	52.7	51.9	50.8	55.1
7	50.1	49.6	49.6	49.2	49.4	49.6	50.0	50.4	51.1	52.1	53.2	54.2	50.7
8	55.2	57.2	57.5	57.4	57.9	58.4	59.9	61.0	62.0	62.8	63.5	63.9	59.7
9	64.2	65.3	65.7	65.7	65.7	65.6	65.8	66.0	66.1	65.9	65.7	65.6	65.6
10	65.6	65.5	65.1	65.1	64.8	64.7	64.5	64.6	64.4	64.4	64.3	64.5	64.8
11	65.0	65.6	66.4	66.6	67.0	67.2	67.6	68.1	68.1	68.6	68.2	67.4	67.2
12	67.5	67.3	67.3	66.7	66.6	66.7	66.6	66.9	67.1	67.0	66.5	66.5	66.9
13	66.3	65.7	64.7	63.4	61.9	59.9	59.2	58.1	56.9	56.3	56.3	56.6	60.4
14	56.8	57.1	57.8	57.8	58.4	58.3	58.3	58.0	57.0	55.9	54.2	52.9	56.9
15	52.3	51.0	48.3	47.2	45.8	45.1	44.5	46.7	49.1	50.3	51.8	53.9	48.8
16	55.5	56.8	58.4	59.6	60.8	61.5	62.5	64.3	64.4	64.8	65.3	65.2	61.6
17	64.7	64.0	63.2	62.3	61.2	59.6	58.0	55.9	55.2	53.6	52.6	52.5	58.6
18	52.7	52.1	51.9	51.9	51.6	52.0	52.1	52.8	52.9	53.0	53.3	53.4	52.5
19	53.4	52.4	51.0	49.7	49.3	48.3	47.7	47.9	47.8	47.2	47.5	47.8	49.2
20	48.2	49.2	49.9	49.8	50.4	51.1	51.2	51.8	52.3	52.4	52.5	52.2	50.9
21	52.7	52.7	52.7	53.2	53.3	53.3	53.8	54.2	54.6	54.7	54.9	55.1	53.8
22	55.1	54.9	54.8	54.5	54.1	54.3	54.2	54.5	54.6	54.3	54.3	54.3	54.5
23	54.5	54.8	54.4	53.4	53.4	52.8	52.1	51.9	51.1	49.9	49.2	49.2	52.2
24	48.8	48.3	46.8	46.0	45.3	45.2	45.0	46.5	46.8	46.8	46.7	46.9	46.6
25	47.0	47.1	47.2	50.9	53.7	56.3	58.1	59.8	60.5	61.1	61.9	62.4	55.5
26	62.8	63.0	63.1	62.2	62.4	62.2	62.1	62.3	62.2	61.9	61.8	61.2	62.3
27	62.1	62.6	62.6	62.4	61.5	61.0	60.9	60.8	60.3	59.8	58.4	58.4	60.9
28	58.5	58.3	57.9	58.5	58.5	59.0	59.5	59.6	59.2	58.9	57.8	57.7	58.6
29	57.4	58.3	59.0	59.4	60.8	61.8	62.9	63.8	64.1	64.3	64.0	63.8	61.6
30	63.5	63.5	63.1	62.8	62.4	62.2	62.2	62.2	62.2	62.0	62.2	62.0	62.5
31	62.2	62.9	62.8	62.9	63.6	63.1	64.3	64.3	64.8	65.3	65.3	65.4	63.9
Mean	58.01	58.05	57.91	57.81	57.83	57.79	57.90	58.15	58.15	58.02	57.88	57.83	57.94

1902. January.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	65.6	66.4	66.9	66.5	67.0	67.1	67.3	67.3	67.0	66.9	66.4	66.6	66.8
2	65.6	64.9	64.7	64.2	64.1	63.7	63.4	63.2	62.8	62.4	62.0	61.9	63.6
3	61.2	60.4	59.7	58.9	58.8	58.6	58.6	58.4	58.6	58.7	59.1	60.1	59.3
4	60.7	61.2	61.7	62.0	62.3	62.4	62.6	62.7	62.4	61.8	61.2	60.8	61.8
5	60.0	59.5	58.6	58.1	58.2	58.5	58.3	58.6	58.8	59.2	60.2	61.3	59.1
6	61.5	62.3	62.9	63.3	63.9	64.6	65.5	66.2	66.4	67.5	68.1	69.8	65.2
7	70.4	71.2	71.4	71.4	71.5	72.0	72.6	73.1	73.5	73.3	73.6	73.3	72.3
8	73.2	72.6	72.2	71.9	71.8	71.5	70.7	70.2	69.7	68.4	67.6	66.6	70.5
9	66.6	66.4	66.0	65.2	64.9	64.7	65.3	65.5	65.6	65.4	65.4	65.6	65.6
10	65.8	65.5	65.5	65.2	64.9	64.6	65.3	65.8	66.1	66.1	66.6	67.4	65.7
11	69.0	70.0	71.1	71.6	72.3	72.9	73.8	74.9	75.3	75.2	74.6	73.9	72.9
12	74.1	73.8	73.0	72.4	71.1	70.1	69.8	69.6	68.6	67.4	66.2	65.3	70.1
13	64.5	64.0	63.2	62.2	61.2	60.4	59.4	58.9	57.9	56.8	55.4	53.5	59.8
14	52.8	51.4	50.0	49.4	48.5	48.0	47.4	47.4	46.9	46.8	46.1	46.2	48.4
15	46.4	47.1	48.0	49.1	50.0	51.5	52.6	54.9	56.0	57.0	58.3	59.5	52.5
16	60.0	60.9	61.2	61.4	62.4	62.8	63.3	63.9	64.2	64.3	63.7	63.1	62.6
17	62.9	62.7	62.2	61.9	61.6	60.7	60.3	59.9	58.8	57.7	56.8	56.0	60.1
18	55.2	54.5	53.5	52.8	52.2	51.8	51.1	51.0	50.8	50.9	50.9	50.7	52.1
19	51.0	51.0	51.0	51.2	51.5	51.8	52.2	52.5	52.6	52.9	53.4	53.4	52.0
20	53.8	54.4	54.2	54.5	54.7	55.0	55.0	55.1	54.7	54.4	54.0	53.4	54.4
21	53.6	53.4	53.5	52.5	52.2	52.3	52.5	52.9	53.0	53.2	53.4	54.5	53.1
22	55.6	56.1	56.8	57.2	57.9	58.5	59.5	60.5	61.0	61.4	62.0	62.9	59.1
23	63.7	64.7	65.7	66.2	68.3	69.7	71.4	73.1	74.8	76.9	77.6	78.5	70.9
24	80.2	81.5	82.6	83.0	83.7	83.9	84.5	85.1	85.3	84.9	84.0	82.5	83.4
25	81.8	81.1	79.4	77.2	75.8	74.2	73.1	72.1	71.2	69.6	68.2	66.4	74.2
26	66.5	66.6	65.5	64.1	65.0	65.1	65.6	66.2	65.9	66.3	66.5	66.3	65.8
27	65.9	65.6	65.7	65.4	66.7	65.9	65.5	67.6	68.1	67.8	67.7	67.7	66.6
28	66.7	67.5	68.2	68.2	68.3	68.2	67.9	67.7	67.3	66.7	65.9	64.7	67.3
29	64.0	62.2	60.7	60.0	58.0	57.2	56.0	54.8	54.1	52.7	51.4	49.8	56.7
30	48.6	48.7	47.5	45.3	44.4	42.6	41.6	41.2	40.2	40.2	40.3	41.1	43.5
31	41.3	41.8	42.3	43.4	44.4	46.0	47.7	50.0	51.6	54.1	55.8	57.7	48.0
Mean	62.20	62.24	62.09	61.80	61.86	61.81	61.93	62.27	62.23	62.16	62.01	61.95	62.05

1902. February.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	59.9	62.2	63.9	65.3	67.0	67.7	69.1	70.2	70.6	71.3	71.3	72.4	67.6
2	73.0	73.6	74.0	74.4	75.2	75.8	77.4	78.6	79.7	81.1	82.5	83.7	77.4
3	84.9	85.6	86.3	87.0	87.7	88.1	88.5	88.7	88.5	88.5	88.5	88.3	87.6
4	88.7	88.9	89.1	89.0	90.3	90.4	91.5	91.5	92.0	92.2	92.1	91.6	90.6
5	91.7	93.2	93.2	92.7	92.9	92.6	92.4	92.0	91.1	91.0	90.1	90.4	91.9
6	91.2	90.0	89.6	88.8	88.4	88.9	88.5	88.0	87.7	87.1	86.3	86.1	88.4
7	86.0	85.5	84.7	84.2	83.6	82.6	82.3	82.0	81.1	79.2	78.3	77.2	82.2
8	76.0	75.6	76.0	75.5	75.7	75.8	76.2	76.6	76.8	76.7	76.2	76.1	76.1
9	76.2	75.3	74.9	74.9	74.4	74.1	74.1	74.4	74.6	74.4	74.3	73.6	74.6
10	73.5	73.5	73.4	73.3	73.0	72.9	73.2	73.4	73.2	72.8	72.4	71.2	73.0
11	71.3	71.1	70.4	69.7	68.7	67.8	67.3	66.7	66.3	65.2	64.8	64.2	67.8
12	64.1	64.4	64.2	64.2	64.3	64.3	64.4	65.0	65.3	65.5	65.5	65.0	64.7
13	65.5	66.3	66.2	66.3	66.8	66.2	66.3	66.5	66.7	67.1	66.9	66.7	66.5
14	66.6	67.6	68.2	68.0	68.1	67.9	67.7	66.8	66.7	66.1	64.8	63.8	66.9
15	63.1	62.0	61.9	60.8	60.4	60.1	60.1	59.7	59.4	59.1	59.0	58.5	60.3
16	58.4	58.3	58.0	58.0	58.1	57.9	58.4	59.1	59.6	59.8	59.8	59.7	58.8
17	58.9	59.9	59.6	59.9	60.6	61.2	61.5	62.1	62.4	62.9	63.1	63.5	61.3
18	64.2	65.4	65.4	65.8	66.4	67.0	67.7	68.4	68.8	69.0	69.1	69.1	67.2
19	68.8	68.5	68.0	67.9	67.2	67.1	67.1	67.3	67.0	66.6	66.6	66.1	67.4
20	65.9	65.7	65.5	65.4	65.0	64.8	64.5	64.2	63.5	62.9	62.0	61.0	64.2
21	60.3	59.8	58.7	58.0	57.1	56.9	57.1	57.1	57.0	56.4	56.5	56.8	57.6
22	57.5	57.9	58.6	58.9	58.6	57.9	57.1	55.9	55.0	55.5	56.0	56.4	57.1
23	57.2	57.2	57.3	56.8	56.5	55.7	55.8	56.1	56.0	56.5	57.0	57.8	56.6
24	59.1	60.3	62.0	61.9	62.3	62.4	62.2	62.2	61.8	61.3	60.6	60.0	61.3
25	59.4	60.4	59.5	58.8	58.7	58.7	57.1	57.2	57.5	57.3	57.0	56.7	58.2
26	56.5	56.5	56.6	55.8	55.1	54.4	53.5	54.0	54.0	53.8	53.4	53.1	54.7
27	53.4	53.8	54.3	54.7	55.2	55.3	55.9	56.4	56.3	56.3	56.6	56.5	55.4
28	56.7	57.0	57.3	56.8	57.2	56.9	56.4	56.3	56.1	56.3	56.0	56.2	56.6
Mean	68.14	68.41	68.46	68.31	68.38	68.26	68.33	68.44	68.38	68.28	68.10	67.92	68.29

1902 March.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	56.2	56.7	56.9	56.9	57.0	56.9	57.6	58.0	58.5	58.7	58.9	58.8	57.6
2	58.8	59.1	59.5	58.9	58.4	58.0	58.1	58.5	58.9	59.0	59.0	59.1	58.8
3	59.2	60.2	60.4	61.3	61.5	62.1	62.4	63.1	63.3	63.8	64.5	65.0	62.2
4	65.6	65.4	65.6	65.6	65.8	65.8	65.7	65.6	65.2	65.0	64.8	64.5	65.4
5	64.3	64.4	63.9	63.8	63.5	63.6	63.6	63.7	63.5	63.4	63.4	63.5	63.7
6	63.5	63.3	63.0	62.8	62.9	62.9	63.3	63.7	63.9	64.3	64.4	64.3	63.5
7	64.6	64.7	64.4	63.9	63.2	62.9	61.7	60.9	59.9	58.3	57.4	56.3	61.5
8	56.1	55.1	54.5	53.5	53.0	53.0	54.2	54.8	55.3	55.3	56.3	57.4	54.9
9	58.8	59.6	59.8	61.0	61.5	61.8	62.4	63.0	63.3	63.5	63.8	64.2	61.9
10	64.8	64.8	65.1	65.3	65.4	65.4	65.7	66.1	65.7	66.3	66.0	65.6	65.5
11	65.3	64.7	64.6	64.2	63.9	63.6	63.5	63.5	63.6	63.4	62.7	62.3	63.8
12	61.8	61.7	60.9	60.6	60.1	59.9	59.8	60.0	60.1	60.5	60.5	60.5	60.5
13	60.7	61.4	61.8	61.8	62.0	61.9	61.9	62.1	62.2	62.3	62.5	62.5	61.9
14	62.4	62.8	63.2	63.1	63.6	63.9	64.4	65.1	65.6	66.3	66.8	66.6	64.5
15	67.2	67.5	68.1	68.1	67.8	67.5	67.6	67.3	66.9	66.8	66.2	65.2	67.2
16	64.8	64.2	63.7	63.1	62.6	62.0	61.5	61.2	60.9	60.4	60.0	60.2	62.1
17	59.9	59.7	59.5	58.6	58.1	58.8	58.9	59.3	59.5	59.8	59.8	59.5	59.3
18	59.3	58.8	58.6	58.3	58.0	57.9	57.1	56.9	56.6	56.7	57.5	58.4	57.8
19	59.7	60.9	62.0	63.8	66.2	68.0	69.5	70.9	72.0	72.7	73.8	74.8	67.9
20	75.8	76.3	76.3	76.5	76.8	77.4	77.9	77.7	76.9	76.2	75.6	74.6	76.5
21	74.1	73.9	72.9	71.9	71.5	71.7	72.5	73.5	74.6	75.8	76.9	77.9	73.9
22	78.5	78.8	78.8	78.6	78.2	77.7	77.6	77.7	76.5	76.0	75.1	74.4	77.3
23	73.3	72.4	71.9	71.2	71.0	70.8	71.1	71.0	70.4	69.9	69.6	68.7	70.9
24	68.7	68.7	68.4	67.4	66.8	65.6	64.9	64.3	63.5	63.7	61.0	60.2	65.3
25	59.0	58.8	57.9	56.6	56.8	56.7	57.5	58.3	59.6	59.8	61.3	62.0	58.7
26	63.1	64.1	64.4	64.1	64.1	64.3	63.9	64.0	64.4	64.2	64.4	64.4	64.1
27	64.7	65.8	67.0	68.0	68.7	69.4	70.8	72.3	73.4	74.4	75.2	76.3	70.5
28	76.8	77.3	77.5	78.0	77.8	77.3	79.9	77.8	77.6	76.8	76.4	75.5	77.4
29	75.0	74.4	73.8	72.1	72.5	71.9	71.7	71.9	72.3	73.1	73.3	73.3	72.9
30	73.8	74.4	74.3	74.5	74.1	73.8	73.8	73.1	72.4	71.2	70.6	69.1	72.9
31	67.9	66.5	64.8	63.3	61.7	60.7	59.5	59.1	58.6	58.6	58.6	58.9	61.5
Mean	65.28	65.37	65.37	65.06	64.98	64.94	65.16	65.30	65.33	65.36	65.36	65.29	65.23

1902. April.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	59.3	59.1	59.5	60.3	60.5	60.8	61.1	61.7	62.6	63.5	64.3	64.9	61.5
2	65.6	65.7	65.7	65.4	65.6	64.3	64.3	63.7	62.8	61.8	61.7	60.6	63.9
3	60.1	60.0	59.6	59.3	59.0	58.1	58.5	59.3	59.7	60.0	59.9	59.9	59.5
4	60.2	61.0	61.2	60.8	60.1	59.7	58.9	59.0	58.7	57.8	57.5	56.6	59.3
5	56.8	57.3	57.7	57.6	57.5	56.9	56.6	56.5	55.3	54.0	53.3	52.2	56.0
6	51.4	51.8	52.2	52.8	54.0	55.1	56.1	57.5	58.4	58.6	58.7	58.9	55.5
7	58.7	58.6	58.4	58.2	58.3	58.2	58.3	58.7	58.7	58.7	58.5	59.0	58.5
8	59.5	60.3	60.9	61.3	61.6	61.5	62.3	63.9	64.7	65.3	65.7	65.6	62.7
9	66.5	66.9	67.1	67.1	66.9	66.7	67.0	67.1	66.8	66.0	65.6	64.9	66.6
10	64.3	64.5	64.3	64.1	63.7	63.4	63.9	64.7	64.8	65.4	65.5	65.6	64.5
11	66.3	67.0	67.8	68.3	68.8	68.9	70.0	70.9	71.6	72.2	73.0	74.0	69.9
12	75.3	76.3	77.4	78.9	79.4	80.2	80.5	81.2	81.7	82.2	82.3	82.2	79.8
13	82.0	81.6	81.6	81.3	80.1	79.4	79.0	78.7	78.2	77.8	77.1	76.2	79.4
14	75.6	75.1	74.6	74.4	74.1	73.7	73.6	73.6	73.5	73.8	73.9	73.9	74.1
15	74.0	74.4	75.2	75.3	75.9	75.7	75.7	75.8	75.8	76.2	75.8	75.3	75.4
16	75.6	75.8	75.9	75.6	76.1	76.2	75.8	76.2	75.8	75.8	75.8	75.8	75.9
17	75.7	75.5	75.3	75.2	75.1	75.1	75.0	75.2	75.2	74.6	74.6	74.4	75.1
18	74.1	73.7	73.4	73.1	72.9	72.8	73.2	73.5	73.6	73.5	73.5	73.8	73.4
19	73.3	72.9	72.6	71.8	71.6	71.3	71.1	71.3	71.6	71.3	71.2	70.9	71.7
20	71.2	70.9	70.2	69.4	69.3	68.7	68.3	68.1	67.3	67.0	66.6	66.2	68.6
21	66.1	65.4	64.9	64.0	63.2	62.7	62.8	62.9	62.5	62.2	62.4	62.8	63.5
22	63.0	62.3	61.6	61.7	61.0	60.5	60.4	60.0	60.0	59.2	58.7	58.4	60.6
23	58.5	59.2	59.4	59.7	59.8	60.2	60.5	60.8	61.3	61.2	60.9	60.6	60.2
24	60.5	60.5	60.3	60.1	59.7	59.3	59.6	59.4	59.1	59.2	59.1	59.1	59.7
25	59.2	59.0	59.8	59.8	59.9	60.1	61.4	61.6	61.5	61.5	61.0	60.6	60.5
26	59.9	59.9	59.6	59.5	59.2	59.1	59.6	59.9	60.4	60.1	59.9	59.9	59.8
27	59.8	59.8	60.0	60.0	59.8	59.7	59.6	59.5	59.3	59.1	58.9	58.7	59.5
28	58.4	57.7	57.9	58.1	57.9	57.8	58.1	58.2	58.5	58.5	58.6	59.1	58.2
29	59.3	59.9	59.9	59.8	60.0	59.8	59.5	59.6	59.4	58.7	58.5	58.7	59.4
30	58.7	58.6	58.8	58.1	58.5	58.9	60.0	60.7	61.5	61.9	63.3	65.4	60.4
Mean	64.95	65.02	65.09	65.03	64.98	64.83	65.02	65.31	65.34	65.24	65.19	65.14	65.10

1902. May.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	66.0	*66.0*	66.0	67.0	68.1	68.8	69.0	69.2	68.9	68.6	67.9	67.6	67.8
2	67.6	67.3	67.0	66.7	66.3	66.1	65.9	65.3	65.2	65.2	65.2	65.3	66.1
3	65.3	65.1	65.4	65.5	65.3	65.5	65.6	65.5	65.2	64.9	64.4	64.2	65.2
4	64.1	63.7	63.7	63.8	63.4	63.2	63.7	63.9	63.9	63.7	63.2	63.2	63.6
5	63.2	63.1	62.9	62.0	62.1	61.4	62.0	62.1	61.9	61.8	61.6	61.8	62.2
6	*62.0*	62.3	62.5	62.5	62.6	62.8	63.0	63.5	63.9	63.9	63.9	64.0	63.1
7	64.0	64.2	64.0	64.1	64.2	64.2	64.7	65.1	65.6	65.7	66.0	66.3	64.8
8	66.9	67.5	68.3	68.8	69.2	69.8	70.5	70.9	71.2	71.2	71.4	71.2	69.7
9	71.3	71.6	71.9	72.1	72.3	72.6	72.9	73.3	73.7	73.8	73.7	73.8	72.8
10	74.2	74.0	74.3	75.0	74.4	74.1	74.7	74.6	74.4	74.2	73.1	73.2	74.2
11	72.5	72.2	72.1	72.0	71.8	71.3	71.1	71.0	70.6	70.5	69.7	69.0	71.2
12	68.7	68.7	68.5	68.0	67.1	66.7	66.1	65.6	64.8	64.0	62.9	62.3	66.1
13	61.6	61.0	60.9	61.0	60.6	60.7	60.8	60.8	60.5	60.4	60.0	60.1	60.7
14	60.3	60.4	60.6	60.9	61.4	61.6	62.6	63.0	63.4	63.7	63.6	63.9	62.1
15	64.1	64.0	63.8	63.2	63.5	63.6	64.1	63.7	63.6	63.5	63.4	63.4	63.6
16	63.4	62.8	63.4	63.6	63.7	64.2	64.6	65.0	65.4	65.8	65.7	66.0	64.5
17	66.7	67.2	67.5	68.2	68.7	69.2	70.0	70.7	70.7	70.7	70.5	70.8	69.2
18	70.8	70.7	70.0	69.2	68.5	67.7	66.9	66.2	65.2	64.9	64.5	64.3	67.4
19	64.9	64.6	65.2	65.9	66.5	67.3	68.9	69.8	70.5	70.9	70.4	70.6	68.0
20	70.8	70.6	70.2	69.3	69.2	67.8	68.2	67.8	66.9	65.8	64.4	63.7	67.9
21	63.3	62.3	61.7	61.0	61.5	61.1	61.2	61.5	61.5	61.3	61.2	61.3	61.6
22	61.4	61.6	61.9	61.5	61.5	61.5	61.8	62.1	61.9	62.1	62.3	62.3	61.8
23	62.3	62.1	62.1	62.1	62.2	61.8	63.1	63.1	63.0	63.0	63.1	63.2	62.6
24	63.6	64.1	64.2	64.3	64.0	64.0	64.2	64.1	64.2	64.0	63.7	63.6	64.0
25	63.4	63.0	62.8	62.5	61.8	61.7	61.8	61.8	62.2	62.0	62.1	62.4	62.3
26	62.2	63.0	63.5	63.8	63.6	64.0	64.2	64.4	64.7	64.8	65.2	65.1	64.0
27	65.9	66.3	66.9	67.2	67.2	67.5	67.6	67.8	68.2	68.4	68.4	68.5	67.5
28	68.5	*68.6*	68.9	69.1	69.2	69.4	69.1	69.0	69.2	69.1	69.0	69.2	69.0
29	69.4	70.1	70.9	71.0	71.5	72.1	72.3	72.2	72.1	71.7	71.2	70.4	71.2
30	69.5	68.0	66.9	65.5	65.0	64.0	62.9	62.0	61.5	60.9	60.7	60.5	64.0
31	60.5	59.9	60.0	59.8	59.5	60.0	59.7	59.3	58.9	58.0	57.5	57.1	59.2
Mean	65.76	65.68	65.74	65.69	65.67	65.66	65.91	65.94	65.90	65.76	65.48	65.43	65.72

1902. June.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean
1	56.9	56.3	55.6	55.6	55.7	56.0	58.1	59.1	59.6	60.1	60.6	60.8	57.9
2	61.2	61.3	62.0	62.1	62.8	62.7	63.0	62.7	62.6	62.5	62.3	62.2	62.3
3	62.3	62.1	61.9	61.7	61.8	61.8	62.0	61.7	61.8	61.4	61.0	60.7	61.7
4	60.7	60.7	60.6	60.2	59.8	59.6	59.5	59.3	59.0	58.0	58.3	59.2	59.6
5	60.0	60.6	61.0	61.2	61.2	61.5	62.0	62.4	62.9	63.1	63.3	63.6	61.9
6	64.0	63.9	64.3	65.1	64.4	64.7	64.7	64.6	64.9	65.0	64.4	64.0	64.5
7	63.5	63.4	62.4	62.7	62.3	62.1	61.8	61.9	61.7	61.7	61.4	61.4	62.2
8	61.6	61.9	62.2	62.5	62.3	62.2	62.7	63.0	62.9	63.5	63.7	64.0	62.7
9	64.0	64.5	64.6	64.8	65.1	65.5	65.5	65.2	64.9	65.0	64.7	64.2	64.8
10	63.8	63.5	63.5	63.5	63.9	64.1	64.6	64.9	65.4	65.8	65.9	65.6	64.5
11	65.6	65.1	65.2	65.4	65.0	64.9	65.0	64.9	64.7	64.6	64.6	64.1	64.9
12	63.7	63.2	63.1	63.2	63.1	63.4	63.5	63.4	63.3	63.8	64.0	64.0	63.5
13	64.0	63.6	63.7	63.5	63.2	63.0	63.5	63.3	63.3	63.3	63.4	63.7	63.5
14	64.0	63.9	63.8	63.7	63.7	63.6	63.6	63.4	63.3	63.3	63.0	62.8	63.5
15	62.4	62.2	61.6	61.4	60.7	60.7	60.1	59.8	59.8	59.3	59.1	59.3	60.5
16	59.9	60.0	60.4	61.0	61.7	61.8	63.3	64.3	65.3	65.6	65.9	66.2	63.0
17	67.0	65.9	67.7	68.1	69.2	69.5	69.8	70.0	70.0	70.1	70.1	70.3	69.0
18	70.6	71.1	71.2	71.3	71.1	71.1	71.3	71.6	71.7	71.6	71.6	71.8	71.3
19	71.7	72.1	72.2	72.4	72.7	72.9	73.2	73.5	73.6	73.6	73.4	73.0	72.9
20	73.0	72.7	72.6	72.2	72.3	71.9	72.0	71.5	71.3	71.0	70.9	70.8	71.9
21	70.8	70.6	70.6	70.1	70.1	70.0	69.6	70.0	69.1	69.5	69.3	69.1	69.9
22	69.0	68.4	68.6	69.0	68.6	68.4	69.5	69.5	69.8	69.8	69.7	69.4	69.1
23	69.8	70.0	69.9	69.7	69.8	69.7	69.8	69.9	69.9	69.9	69.8	69.6	69.8
24	69.2	69.4	69.9	69.4	68.8	68.7	67.4	67.9	68.4	68.5	67.9	67.7	68.6
25	67.6	68.2	68.4	68.3	68.0	68.5	67.8	68.0	68.0	68.2	68.0	68.0	68.1
26	68.1	67.8	68.0	67.9	67.2	66.7	66.4	66.3	66.1	66.1	66.0	65.9	66.9
27	65.8	65.8	65.9	65.9	65.6	65.6	65.8	65.6	65.7	65.7	65.7	65.7	65.7
28	65.8	66.0	65.3	67.1	67.8	68.1	68.8	69.0	69.2	69.4	69.3	69.3	67.9
29	70.1	70.0	69.8	69.7	69.8	69.7	69.3	69.3	69.2	69.0	68.9	68.8	69.5
30	68.6	68.3	68.0	67.7	67.1	66.7	66.2	65.6	65.1	64.7	64.1	63.9	66.3
Mean	65.49	65.42	65.47	65.55	65.49	65.50	65.66	65.72	65.75	65.77	65.68	65.64	65.60

1902. July.

Gaasefjord. $\varphi = 78° 40'$ N. $\lambda = 88° 38'$ W. Sea-Level. St. Gr. GC. = + 1.75 at 742.7. 700 mm. +

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
1	63.5	63.1	62.7	62.4	62.2	62.0	61.8	61.4	61.1	60.7	60.4	60.1	61.8
2	60.0	59.9	59.7	58.9	59.1	59.0	59.1	59.7	59.6	59.5	59.2	59.0	59.4
3	59.3	59.8	59.3	58.5	58.2	57.4	57.5	57.9	57.4	57.2	57.2	57.4	58.1
4	57.8	57.9	58.0	57.9	57.7	57.8	57.9	58.2	58.4	58.0	58.0	58.0	58.0
5	58.4	59.3	59.4	59.9	59.5	59.4	59.9	59.9	60.1	60.4	60.4	60.1	59.8
6	60.1	60.3	60.2	59.6	58.8	58.0	57.7	57.3	56.7	56.7	56.9	57.2	58.3
7	57.6	58.0	59.2	59.3	59.7	60.5	61.5	62.0	62.3	62.4	62.5	62.5	60.6
8	62.5	62.3	62.3	62.1	61.8	61.2	61.0	60.4	59.7	58.9	58.6	58.0	60.7
9	57.6	57.0	57.0	56.8	56.2	56.1	56.5	57.7	57.9	58.4	59.1	59.4	57.5
10	59.8	60.4	60.9	61.3	61.2	60.9	61.3	61.5	61.6	61.9	62.0	61.7	61.2
11	61.4	61.4	61.4	61.4	61.4	61.0	60.9	60.9	61.0	61.0	60.9	60.7	61.1
12	60.7	60.6	60.5	60.4	60.2	59.9	59.9	59.7	59.6	59.6	59.5	59.2	60.0
13	59.0	58.9	58.8	58.5	58.0	58.0	57.9	57.7	57.6	57.6	57.0	56.8	58.0
14	56.7	56.7	56.3	56.2	56.3	56.2	56.5	56.6	56.6	57.1	57.1	57.6	56.7
15	58.1	58.4	58.8	58.9	59.0	59.7	59.5	59.5	60.0	60.3	60.0	60.0	59.4
16	59.9	60.4	60.5	60.4	60.1	59.9	59.7	59.6	59.2	58.9	58.5	58.0	59.6
17	57.9	57.4	57.2	56.5	55.9	55.8	56.0	56.2	56.1	56.3	56.2	56.7	56.5
18	57.3	57.6	57.9	57.9	58.1	58.1	58.7	59.1	59.3	59.0	58.5	58.2	58.3
19	58.0	57.6	57.0	56.5	56.1	56.0	56.1	56.1	56.5	56.5	57.3	57.8	56.8
20	58.3	58.8	59.3	59.8	60.3	60.7	61.1	61.7	62.0	62.6	63.3	63.4	60.9
21	64.3	64.8	65.7	65.5	66.0								
Mean	59.20	59.29	59.32	59.16	58.99	58.88	59.03	59.16	59.14	59.15	59.13	59.09	59.13

THE DAILY PERIOD.

The numbers in the last row in the Tables on pp. 6—50, giving the monthly means of the pressure for each even hour have been corrected for the march of the pressure during the month, and reduced to Noon in the usual manner[1]. The mean of the reduced 12 values has been taken, and the deviation of each of the 12 numbers from this mean computed. The following Tables contain these deviations, expressed in hundredths of a millimetre. Minus indicates below, plus above the mean.

PRESSURE. DAILY PERIOD. 0.01 mm.

January.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	− 8	− 9	+ 6	+24	+15	− 3	− 4	+ 3	+ 6	+ 1	0	−31	31
1900	− 9	+ 3	− 6	−26	−17	−12	−11	+14	+33	+24	+13	−02	31
1901	− 6	+ 4	− 7	−11	−10	−18	− 7	+15	+23	+19	+ 1	− 5	31
1902	+ 4	+10	− 3	−30	−22	−25	−11	+25	+23	+18	+ 5	+ 1	31
Mean	−05	+02	−02	−11	−08	−14	−08	+14	+21	+16	+05	−09	

February.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	− 5	− 6	−13	−11	−14	−26	−17	+10	+32	+31	+24	− 4	28
1900	−13	− 6	+ 9	− 1	+ 7	− 7	−15	− 4	+13	+19	+12	−14	28
1901	− 8	−12	+ 1	− 6	− 3	−14	−13	+ 4	+28	+28	+ 3	+ 2	28
1902	−17	+10	+16	+ 1	+ 9	− 3	+14	+16	+10	+ 1	−17	−34	28
Mean	−11	−04	+03	−06	−00	−13	−08	+06	+21	+20	+05	−13	

March.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	−16	−11	+ 1	+ 4	+ 4	−14	− 4	+11	+16	+ 9	+ 3	− 3	31
1900	−17	0	−11	− 7	+ 1	− 1	+ 4	+23	+15	+18	− 5	−23	31
1901	−12	+ 9	+ 6	− 1	− 2	− 7	− 3	+15	+14	+11	− 2	−23	31
1902	+10	+18	+ 7	−15	−23	−28	− 7	+ 7	+ 9	+12	+10	+ 3	31
Mean	−09	+04	+01	−05	−05	−13	−02	+14	+13	+12	+02	−12	

[1] H. Wild. Die Temperaturverhältnisse des Russischen Reiches. Erste Hälfte. p 9.

April.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
1899	−25	+ 4	+ 6	+13	+13	+ 4	− 2	+10	+ 4	− 1	− 7	−16	30
1900	−18	− 5	− 2	− 2	+ 7	+12	+12	+16	+10	+ 5	−12	−26	30
1901	−21	0	+ 5	− 2	+16	+10	+20	+25	+11	− 4	−29	−32	30
1902	+ 5	0	+ 5	− 2	− 9	−26	− 9	+18	+20	+ 8	0	− 6	30
Mean	−15	00	+03	+02	+07	00	+05	+17	+11	+02	−12	−20	

May.

1899	− 9	− 3	+ 2	+10	+ 5	+ 2	− 2	+ 1	+ 6	+ 2	− 9	−16	31
1900	−11	+ 4	+ 9	+13	+18	+ 9	+ 5	− 3	− 4	− 3	−19	−19	31
1901	− 4	− 9	− 5	− 5	+ 7	+11	+18	+22	+11	+ 7	−25	−24	31
1902	− 8	−14	− 5	− 8	− 8	− 7	+20	+25	+24	+12	−14	−17	31
Mean	−08	−05	00	+03	+06	+04	+10	+11	+09	+05	−17	−19	

June.

1899	−17	− 1	+15	+21	+13	−12	−11	+ 3	+ 5	+11	− 5	−20	30
1900	−16	−15	− 5	+15	+11	− 5	+ 9	+ 7	+10	+ 6	− 8	−12	30
1901	− 9	−12	−13	+ 2	+ 5	+ 4	+10	+18	−15	+10	− 3	− 2	30
1902	− 1	−10	− 7	0	− 9	− 9	+ 6	+ 9	+11	+11	0	− 6	30
Mean	−11	−10	−10	+09	+05	+05	+03	+09	+03	+09	−04	−10	

July.

1899	− 7	+12	+19	+13	+15	− 7	+ 5	+ 1	− 2	− 9	−24	−11	23
1900	−27	− 6	+36	+90	− 6	−24	0	− 6	+ 9	+12	−21	−36	31
1901	−42	−15	+ 3	+21	+ 2	−18	+21	+30	+45	+45	−33	−60	31
1902	+ 6	+15	+18	+ 3	+14	−25	−10	+ 3	+ 2	+ 3	+ 1	− 3	20
W. Mean	−07	+02	+11	+14	+05	−11	+01	+03	+04	+04	−10	−12	

August.

1900	− 8	−13	+ 3	+25	+13	+ 6	− 4	+ 5	−10	− 3	− 5	−10	9
1901	+ 3	+ 3	+ 7	−14	− 7	−16	−10	+ 4	+ 9	+19	+ 1	0	31
W. Mean	00	00	+05	−04	−02	−09	−05	+ 3	+ 4	+11	00	−02	

September.

1898	−60	−64	−58	−35	−25	−14	+ 8	+47	+53	+46	+52	+44	11
1900	0	+ 6	− 8	−23	−35	−25	+17	+ 9	+33	+17	+ 8	+ 3	13
1901	−19	− 4	− 2	− 7	+ 1	− 1	− 2	+10	+22	+20	− 4	−14	30
W. Mean	−21	−14	−15	−16	−13	−09	+05	+17	+31	+25	+10	+02	

October.

1898	−16	−15	− 9	− 7	− 3	− 8	0	+22	+29	+23	+ 1	−12	31
1899	−12	− 7	−24	−10	+ 5	+ 4	+ 8	+23	+14	+ 9	− 9	− 1	8
1900	+ 1	+ 1	+ 5	− 5	− 1	− 7	−10	+ 9	+19	+10	− 8	− 9	31
1901	+ 7	+10	+ 9	− 8	−12	−16	− 1	+15	+ 6	+ 3	− 4	− 4	31
W. Mean	−03	−02	00	−07	−05	−09	−03	+16	+18	+12	−04	−08	

November.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
1898	−15	− 4	−10	−11	− 3	−16	+ 5	+25	+35	+12	− 2	−12	30
1899	−16	− 5	−18	−23	−10	−10	+ 8	+28	+29	+24	+11	−15	30
1900	− 5	+ 7	− 5	−11	− 5	− 8	+ 5	+18	+ 8	+ 3	− 7	− 3	30
1901	−20	− 7	− 7	−12	+19	+ 6	+10	+25	+19	− 3	− 8	−24	30
Mean	−14	− 2	−10	−14	0	− 7	+ 7	+24	+23	+ 9	− 2	−13	

December.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
1898	+ 1	+10	+19	− 3	− 6	−26	−18	+ 9	+14	+ 9	+ 5	−11	31
1899	−29	−26	−11	−10	+ 6	+12	+15	+39	+36	+15	−20	−32	31
1900	−14	−18	−14	−17	−14	− 2	+10	+29	+32	+15	+ 5	−12	31
1901	+ 7	+11	− 3	−13	−11	−15	− 4	+21	+21	+ 8	−14	−11	31
Mean	− 9	− 6	− 2	−11	− 6	− 8	+ 1	+24	+26	+12	− 6	−17	

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
Winter	−08	−03	00	−09	−05	−12	−05	+15	+23	+16	+01	−13
Spring	−11	00	+01	00	+03	−03	+04	+14	+11	+06	−09	−17
Summer	−06	−03	+02	+06	+03	−05	00	+05	+04	+08	−05	−08
Autumn	−13	−06	−08	−12	−06	−08	+03	+19	+24	+15	+01	−06
Year	−10	−03	−01	−04	−01	−07	+01	+13	+15	+11	−03	−11

The last column in the Tables gives the number of days in each month from which bi-hourly observations have been available for the determination of the daily period. It will be seen that all the months from November to June are represented by fully four years, while the other months, — particularly August — or the months in which the Fram was under way, are less favoured in this respect. The means for these latter months have been computed, the numbers being given a weight proportional to the number of observing days. They are designated as Weighted (W.) Means.

The last of the above Tables gives the means for the meteorological seasons (Dec.—Febr. etc.) and for the year.

Treating the bi-hourly deviations from the daily mean by harmonic analysis, we find the values of the constants a_1 A_1 a_2 A_2 in the formula

$$p_t - p_m = a_1 \sin (A_1 + t) + a_2 \sin (A_2 + 2t)$$

t reckoned from midnight.

	a_1	A_1	a_2	A_2
	mm.	° ′	mm.	° ′
January	0.112	156 52	0.101	270 51
February	0.090	169 39	0.120	244 21
March	0.071	173 57	0.098	272 32
April	0.111	249 33	0.088	277 33
May	0.115	251 23	0.061	284 57
June	0.091	234 14	0.045	206 24
July	0.055	303 43	0.094	257 35
August	0.039	124 26	0.049	257 53
September	0.223	174 15	0.070	246 53
October	0.084	177 17	0.088	281 17
November	0.149	197 54	0.083	292 31
December	0.130	195 2	0.118	284 52
Winter	0.108	174 47	0.110	266 59
Spring	0.084	235 10	0.081	277 12
Summer	0.034	241 47	0.057	245 50
Autumn	0.148	183 6	0.085	265 7
Year	0.083	198 28	0.078	267 57

The next Table shows the observed (o) and the computed (c) values, and their difference (d).

January.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−5	+2	−2	−11	−8	−14	−8	+14	+21	+16	+5	−9
c	−6	−2	0	−6	−14	−14	−4	+12	+20	+16	+4	−6
d	−1	+4	−2	−5	+6	0	−4	+2	+1	0	+1	−3

February.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−11	−4	+3	−6	0	−13	−8	+6	+21	+20	+5	−13
c	−12	−6	+2	+1	−7	−12	−7	+8	+20	+18	+5	−9
d	−1	+2	+1	−7	+7	−1	−1	−2	+1	+2	0	−4

March.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−9	+4	+1	−5	−5	−13	−2	+14	+13	+12	+2	−12
c	−7	0	+3	−2	−9	−11	−2	+11	+17	+11	−1	−9
d	−2	+4	−2	−3	+4	−2	0	+3	−4	+1	+3	−3

April.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−15	0	+3	+2	+7	0	+5	+17	+11	+2	−12	−20
c	−14	−3	+5	+5	+2	+2	+8	+14	+13	+1	−12	−19
d	−1	+3	−2	−3	+5	−2	−3	+3	−2	+1	0	−1

May.

	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
o	− 8	− 5	0	+ 3	+ 6	+ 4	+10	+11	+ 9	+ 5	−17	−19
c	−13	− 4	+ 2	+ 4	+ 3	+ 5	+10	+13	+10	− 1	−12	−17
d	+ 5	− 1	− 2	− 1	+ 3	− 1	0	− 2	− 1	+ 6	− 5	− 2

June.

o	−11	−10	−10	+ 9	+ 5	+ 5	+ 3	+ 9	+ 3	+ 9	− 4	−10
c	−14	−11	− 3	+ 4	+ 6	+ 5	+ 5	+ 6	+ 7	+ 5	− 1	− 9
d	+ 3	+ 1	− 7	+ 5	− 1	0	− 2	+ 3	− 4	+ 4	− 3	− 1

July.

o	− 7	+ 2	+11	+14	+ 5	−11	+ 1	+ 3	+ 4	+ 4	−10	−12
c	− 9	+ 3	+12	+11	+ 3	− 5	− 4	+ 2	+ 6	+ 1	− 8	−14
d	+ 2	− 1	− 1	+ 3	+ 2	− 6	+ 5	+ 1	− 2	+ 3	− 2	+ 2

August.

o	0	0	+ 5	− 4	− 2	− 9	− 5	+ 3	+ 4	+11	0	− 2
c	− 2	+ 1	+ 3	0	− 5	− 8	− 5	+ 2	+ 7	+ 7	+ 2	− 2
d	+ 2	− 1	+ 2	− 4	+ 3	− 1	0	+ 1	− 3	+ 4	− 2	0

September.

o	−21	−14	−15	−16	−13	− 9	+ 5	+17	+31	+25	+10	+ 2
c	−15	−17	−16	−15	−14	− 9	+ 4	+19	+29	+26	+12	− 4
d	− 6	+ 3	+ 1	− 1	+ 1	0	+ 1	− 2	+ 2	− 1	− 2	+ 6

October.

o	− 3	− 2	0	− 7	− 5	− 9	− 3	+16	+18	+12	− 4	− 8
c	− 7	− 1	0	− 5	−10	− 9	+ 1	+13	+17	+10	− 1	− 8
d	+ 4	− 1	0	− 2	+ 5	0	− 4	+ 3	+ 1	+ 2	− 3	0

November.

o	−14	− 2	−10	−14	0	− 7	+ 7	+24	+23	+ 9	− 2	−13
c	−12	− 8	− 6	− 9	−10	− 3	+10	+21	+22	+11	− 3	−12
d	− 2	+ 6	− 4	− 5	+10	− 4	− 3	+ 3	+ 1	− 2	+ 1	− 1

December.

o	− 9	− 6	− 2	−11	− 6	− 8	+ 1	+24	+26	+12	− 6	−17
c	−13	− 5	− 2	− 7	−12	− 8	+ 7	+21	+25	+13	− 5	−15
d	+ 4	− 1	0	− 4	+ 6	0	− 6	+ 3	+ 1	− 1	− 1	− 2

Winter.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−8	−3	0	−9	−5	−12	−5	+15	+23	+16	+1	−13
c	−11	−4	0	−4	−11	−12	−1	+14	+22	+16	+1	−10
d	+3	+1	0	−5	+6	0	−4	+1	+1	0	0	−3

Spring.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−11	0	+1	0	+3	−3	+4	+14	+11	+6	−9	−17
c	−12	−3	+3	+2	−1	−1	+5	+13	+13	+4	−8	−15
d	+1	+3	−2	−2	+4	−2	−1	+1	−2	+2	−1	−2

Summer.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−6	−3	+2	+6	+3	−5	0	+5	+4	+8	−5	−8
c	−8	−2	+4	+5	+1	−2	−1	+3	+7	+4	−2	−8
d	+2	−1	−2	+1	+2	−3	+1	+2	−3	+4	−3	0

Autumn.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−13	−6	−8	−12	−6	−8	+3	+19	+24	+15	+1	−6
c	−13	−10	−6	−8	−10	−8	+3	+17	+23	+17	+3	−9
d	0	+4	−2	−4	+4	0	−0	+2	+1	−2	−2	+3

Year.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
o	−10	−3	−1	−4	−1	−7	+1	+13	+15	+11	−3	−11
c	−10	−4	0	−1	−5	−5	+2	+12	+16	+10	−2	−10
d	0	+1	−1	−3	+4	−2	−1	+1	−1	+1	−1	−1

The minima and maxima in the daily period of the pressure, computed by the formula, are

	1st Minimum		1st Maximum		2nd Minimum		2nd Maximum	
	mm.	h m	mm.	h m	mm.	h m	mm.	h m
January	−0.067	1 5 a. m.	+0.002	5 24 a. m.	−0.153	11 5 a. m.	+0.206	6 19 p. m.
February	−0.131	1 34 a. m.	+0.028	6 54 a. m.	−0.125	12 8 p. m.	+0.208	6 50 p. m.
March	−0.095	0 39 a. m.	+0.027	5 48 a. m.	−0.113	11 14 a. m.	+0.168	5 59 p. m.
April	−0.191	0 13 a. m.	+0.055	7 11 a. m.	+0.013	11 11 a. m.	+0.143	4 51 p. m.
May	−0.169	0 3 a. m.	+0.039	7 49 a. m.	+0.032	10 0 a. m.	+0.130	4 9 p. m.
June	−0.136	2 13 a. m.	+0.064	10 15 a. m.	+0.046	1 51 p. m.	+0.073	6 11 p. m.
July	−0.137	0 6 a. m.	+0.130	6 48 a. m.	−0.053	12 49 p. m.	+0.061	5 56 p. m.
August	−0.021	0 57 a. m.	+0.026	5 44 a. m.	−0.079	11 58 a. m.	+0.075	6 55 p. m.
September	−0.173	3 48 a. m.					+0.291	6 36 p. m.
October	−0.087	0 34 a. m.	+0.005	5 27 a. m.	−0.107	10 45 a. m.	+0.172	5 44 p. m.
November	−0.133	0 55 a. m.	−0.065	5 36 a. m.	−0.103	9 22 a. m.	+0.228	5 7 p. m.
December	−0.156	0 34 a. m.	−0.017	5 42 a. m.	−0.119	10 21 a. m.	+0.251	5 23 p. m.
Winter	−0.118	0 59 a. m.	+0.002	6 0 a. m.	−0.122	11 10 a. m.	+0.218	6 9 p. m.
Spring	−0.151	0 14 a. m.	+0.038	6 42 a. m.	−0.021	10 59 a. m.	+0.136	5 6 p. m.
Summer	−0.089	0 57 a. m.	+0.048	7 23 a. m.	−0.023	12 37 p. m.	+0.068	6 16 p. m.
Autumn	−0.129	1 48 a. m.	−0.062	6 26 a. m.	−0.103	10 21 a. m.	+0.232	6 3 p. m.
Year	−0.115	0 57 a. m.	+0.002	6 31 a. m.	−0.058	11 0 a. m.	+0.158	5 48 p. m.

THE ANNUAL PERIOD.

The following Table shows the mean pressure for each month, extracted from the Tables on pp. 6 to 50. Those of the incomplete months are in brackets.

Year	January	February	March	April	May	June
1899	761.58	763.25	774.74	766.51	766.16	758.02
1900	55.45	67.18	68.10	63.87	62.89	59.19
1901	57.73	66.27	64.25	65.40	65.30	57.79
1902	62.05	68.29	65.23	65.10	65.72	65.60
Mean	759.20	766.25	768.08	765.22	765.02	760.15

Year	July	August	September	October	November	December
1898			[761.67]	760.68	760.23	759.29
1899	[756.56]			[58.11]	58.47	61.95
1900	58.00	[54.96]	[55.70]	57.40	61.77	61.43
1901	57.66	57.60	57.42	61.67	62.88	57.94
1902	[59.13]					
Mean	757.84	756.28	758.26	759.46	760.84	760.15

These numbers give a regular annual period with a chief maximum in March and a secondary maximum in November, and with a chief minimum in August and a secondary minimum in January. The range is 11.8 mm., and the mean for the year is 761.40 mm.

The lowest observed pressures are:

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[52.1]	49.3	42.7	42.3
1899	44.6	45.2	56.9	53.0	57.6	42.3	[48.3]	—	—	[53.3]	40.7	41.6
1900	43.3	46.7	49.3	53.6	53.3	53.0	49.5	[46.0]	[39.5]	39.7	51.0	49.2
1901	41.5	41.2	42.9	54.8	57.7	47.8	48.6	51.0	43.6	53.1	45.3	44.5
1902	40.2	53.1	56.2	51.4	57.1	55.6	[55.8]					
Mean	42.4	46.5	51.3	53.2	56.4	49.7	50.5	48.5	45.1	48.6	44.9	44.4

The means indicate an annual period with maximum in May and minimum in January. The lowest observed pressure is 739.5 mm. on the 15th September, 1900, noon. Wind East, backing from SW to NE, velocity 8 m. p. s.

The highest observed pressures are

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[69.0]	76.6	80.6	82.4
1899	71.6	81.7	86.5	80.9	74.9	69.2	[68.0]	—	—	[65.2]	72.0	91.3
1900	71.9	83.8	90.5	79.0	71.0	66.3	67.9	[60.9]	[67.9]	70.6	75.6	73.1
1901	84.7	81.1	77.1	74.3	73.2	65.4	64.4	64.4	67.9	72.5	73.5	68.6
1902	85.3	93.2	78.8	82.3	74.7	73.6	[63.5]					
Mean	78.4	85.0	83.2	79.1	73.5	68.6	66.0	62.7	68.3	71.2	75.4	78.9

The means show an annual period with maximum in February and minimum in August. The highest observed pressure is 793.2 mm., on the 5th February, 1902, 4 and 6 a. m. Temperature —36° and —35°.2, calm.

The differences between the mean highest and lowest pressures in each month are

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
36.0	38.5	31.9	25.9	17.1	18.9	15.5	14.2	23.2	22.6	30.5	34.5

The oscillation of the pressure is greatest in February and least in August, greatest in winter, least in summer.

PART II.

THE TEMPERATURE OF THE AIR.

The thermometers sent with the Expedition had been compared with the standards at the Meteorological Institute in Kristiania in the spring of 1898. Only very few of them came back[1].

The thermometers used for the regular observations at the winter quarters were

1) Mercury thermometer Küchler No. 22 (dry bulb).
2) Mercury thermometer Küchler No. 9 (wet bulb).
3) Mercury thermometer Küchler No. 10 (dry bulb).

The comparisons of these thermometers in Kristiania in 1898 gave the following corrections

at	No. 9	No. 10	No. 22
16°	+ 0°.05	— 0°.05	+ 0°.03
8	+ 0.02	0.0	+ 0.02
0	0.00	0.0	0.00
—13	0.0	— 0.075	0.0

On the 17th of September, 1898, No. 9 and No. 22 showed 0°.0 in melting snow. The journal contains the remark that both were examined in melting snow on the 4th of October, and compared with the standard on the 24th of October and the 2nd of November of the same year. According to the journal, "the thermometer was corrected" on the 2nd of January, 1899, and No. 9 and No. 22 "corrected" on the 27th of May, 1899. The results of these comparisons are not given. The Expedition had an apparatus for comparing thermometers, consisting of a cylindrical vessel with a lid and an annular stirrer. The vessel could be

[1] Some of the thermometers were broken on the sledge-journeys, and some on board ship. The Fram rolled heavily in a sea, and by her uneasy motions caused the loss of many thermometers, particularly on the return voyage.

filled with spirits of wine, and the thermometers compared with the standards at low temperatures. I have been told that such comparisons were made several times, but the note-book containing them has not come into my hands, though I have made repeated inquiries for it.

None of the mercury thermometers divided into fifths of a degree came back; so they could not be examined anew. But there is no reason why they should have altered their corrections during the absence of the Expedition. During the years 1898 to 1902, thermometers of exactly the same kind as those belonging to the Expedition have remained unaltered at the Meteorological Institute.

For the thermometers No. 9 and No. 22, I have taken the corrections throughout to be nothing.

For No. 10 I have taken the following corrections:

from	0°	to	— 10°	Corr.	0°.0
„	— 10	„	— 30	„	— 0.1
„	— 30	„	— 35	„	— 0.2

The mercury thermometers were observed when the temperature of the air was above — 35° C.

For the lower temperatures the following thermometers were observed:

4) Toluol Küchler No. 17 and
5) Toluol Küchler No. 27.

These thermometers were sling thermometers, divided into whole degrees Centigrade.

Fortunately these thermometers came back, and could be verified in Kristiania afterwards. The corrections found were

No. 17	1898	1903	No. 27	1898	1903
at 0°	— 0°.1	0°.0	at 0°	0°.0	— 0°.3
„ — 20	0.0		„ — 20	— 0.15	

I have taken for No. 17 Corr. = 0.°0

and for No. 27	1898—1899 Corr.	— 0°.3	at temperatures below — 35°.
	1899—1900 „	— 0.3	
	1900—1901 „	— 0.4	
	1901—1902 „	— 0.5	

The thermometers were suspended in a doubly louvred screen, which also contained the minimum and maximum thermometers and a thermograph Richard. From the 19th to the 27th of September, 1898, the

screen was standing on the ice near the Fram; but afterwards it stood on board on the bowsprit just ahead of the forestay, at a height of 5.5 metres above the sea or ice.

The Tables give the corrected temperature for every alternate hour during the stay of the Fram in her winter quarters. In the few cases in which the observations have been omitted, the temperatures inserted in the Tables have been taken from the thermograph curves, or, when such are wanting, computed by interpolation.

The Tables give, for each day, the mean of the 12 observed temperatures, the minimum and the maximum, and their difference. The spirit minimum thermometer was read every day at 8 a. m. and at 8 p. m., and the observer noted the reading of the index and of the top of the spirit column. The comparison of the latter with the reading of the dry thermometer gives the error of the minimum thermometer, or the correction to be applied to the reading of the index. The corrected index reading can in most cases be taken as the minimum temperature of the day. But as the day is reckoned from midnight to midnight and not from 8 a. m. or 8 p. m. it sometimes happens that the minimum registered does not fall within the adopted limits for the day. In some cases the minimum temperature of the day occurs when the temperature is falling just at midnight, and the corresponding reading of the dry thermometer has then been taken as the minimum. In some cases the curves of the thermograph have been consulted, but it has been impossible to take the extreme temperatures from them, as they have no marks for the exact time every day; and there are more or less lengthy periods in which the thermograph did not work. In the few cases in which the extreme-thermometers were out of order, the lowest and highest temperatures given in the tables have been taken directly from the corresponding readings of the dry thermometer.

The maximum thermometer was a mercury thermometer. Its error, as far as I am aware, was not determined by direct comparison, but it seems to have been rather small, judging from its indications and the daily march of the temperature. When the temperature was below — 35° C., it could not be used. In such cases, and in the few other cases in which it was not read, the highest reading of the dry thermometer has been taken as the maximum temperature.

The series of daily extreme temperatures given in the Tables is thus not quite homogeneous, but they will give a fairly good representation of the aperiodic range of the temperature of the air in the space of one day.

In their last horizontal row, the Tables give the monthly means for each alternate hour as the means of the respective vertical columns. The mean for the whole month is the mean of the numbers in the vertical column headed *Mean*, or of the numbers in the horizontal row of means. The three last columns contain the minimum and the maximum temperatures of each day and their difference, and the last row the monthly means of these 3 columns.

At the head of the Tables stand the year, the month, the name of the winter-station, the latitude φ, the longitude λ, and the height of the thermometer above the sea or ice, h, in metres.

Interpolated numbers in italics.

TEMPERATURE.

1898. September.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
19				— 9.3	— 8.8	— 9.4	—10.0	—10.6	—12.0	—12.5	—10.2	—10.0				
20	— 9.9	—10.1	— 9.7	— 8.5	— 7.5	— 7.1	— 7.0	— 7.5	— 8.2	— 8.2	— 6.8	— 8.8	— 8.28	—11.0	— 7.0	4.0
21	— *5.1*	—11.4	— 9.2	— 9.6	—10.2	— 8.4	— 8.3	— 8.1	— 7.8	— 7.7	— 8.0	— 7.4	— 8.43	—11.4	— **5.1**	6.3
22	— 7.6	— 7.4	— 6.9	— 6.9	— 6.8	— 6.7	— 6.8	— 9.2	— 7.6	— 7.7	— 9.2	—10.3	— 7.76	—10.3	— 6.3	4.0
23	—10.4	—11.9	—10.2	—12.6	—11.8	—11.4	—11.8	—12.6	—12.8	—13.5	—12.9	—12.9	—12.07	—13.5	—10.2	3.3
24	—11.0	— 8.6	—10.0	— 9.7	— 9.3	— 9.8	— 9.6	—10.0	—10.4	—11.0	—10.8	—10.8	—10.08	—13.4	— 8.4	5.0
25	—11.6	—12.4	—13.2	—13.0	—12.6	—10.2	— 9.8	— 9.3	— 9.5	—10.2	—11.0	—10.7	—11.13	—**14.3**	— 9.1	5.2
26	—10.8	—10.5	— 9.2	—10.5	—*10.2*	— *9.6*	— 9.2	— 9.6	— 9.6	— 9.8	—11.0	—*11.2*	—10.10	—11.6	— 8.9	2.7
27	—11.3	—12.0	—14.3	—11.4	—10.3	— 9.6	—14.2	— 9.1	— 9.4	— 9.4	—10.3	—10.0	—10.94	—**14.3**	— 8.9	5.4
28	— 9.0	— 9.3	— 9.4	— 9.6	— 9.6	— 9.4	— 8.5	— 8.5	— 8.8	— 9.2	—10.6	—13.1	— 9.58	—13.5	— 8.2	5.3
29	—13.3	—12.4	—13.0	—12.0	—12.7	—11.4	—12.2	—13.0	—12.8	—12.4	—13.0	—13.2	—12.62	—13.3	—11.4	2.6
30	—13.0	—13.0	—14.2	—13.6	—14.0	—14.0	—14.0	—14.2	—13.2	—13.8	—13.4	—13.8	—13.68	—14.2	—11.8	2.4
Mean *	—10.27	—10.82	—10.85	—10.67	—10.45	— 9.78	—10.13	—10.10	—10.01	—10.26	—10.64	—11.11	—10.42	—12.8	— 8.7	4.1

* 20th to 30th.

1898. October.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−13.6	−13.8	−13.6	−13.0	−13.0	−13.0	−12.9	−12.4	−11.5	−11.6	−11.2	−10.7	−12.53	−14.2	−10.7	3.5
2	−10.2	−10.0	−9.8	−9.8	−9.4	−9.3	−9.1	−9.3	−9.3	−9.2	−9.6	−10.4	−9.62	−10.8	−9.0	1.8
3	−12.5	−12.0	−11.5	−11.1	−11.3	−10.6	−10.6	−10.4	−9.8	−9.6	−9.8	−10.0	−10.77	−12.7	−9.6	3.1
4	−9.6	−9.2	−8.8	−9.2	−9.1	−8.2	−8.4	−9.0	−8.7	−7.9	−8.0	−8.0	−8.68	−10.2	−7.8	2.4
5	−7.4	−10.6	−9.0	−5.4	−4.6	−3.6	−5.2	−7.4	−9.4	−5.2	−8.9	−9.3	−7.17	−10.5	−3.5	7.0
6	−8.0	−11.7	−8.2	−9.2	−12.8	−8.8	−9.6	−7.3	−7.6	−6.5	−10.9	−11.2	−9.32	−13.3	−6.4	6.9
7	−10.1	−7.5	−7.2	−8.4	−9.3	−10.0	−9.8	−11.2	−12.4	−13.0	−12.6	−12.8	−10.36	−13.6	−6.6	7.0
8	−12.2	−12.2	−12.0	−8.2	−9.0	−9.2	−8.6	−9.0	−9.3	−10.7	−10.4	−9.8	−10.01	−12.8	−8.2	4.6
9	−10.2	−9.4	−10.0	−10.0	−9.0	−8.8	−9.2	−9.2	−9.9	−10.6	−10.4	−7.4	−9.50	−11.2	−6.8	4.4
10	−10.2	−11.0	−11.2	−10.9	−11.4	−12.0	−11.6	−11.2	−11.2	−11.0	−11.0	−9.8	−11.04	−12.8	−9.6	3.2
11	−10.2	−9.6	−10.6	−10.7	−10.5	−10.4	−10.3	−9.6	−10.4	−10.0	−14.2	−13.0	−10.79	−14.6	−9.6	5.0
12	−13.8	−12.6	−13.0	−13.1	−11.5	−12.2	−14.2	−9.6	−11.8	−13.2	−13.1	−16.1	−12.85	−14.4	−9.5	4.9
13	−16.3	−15.2	−14.2	−10.2	−10.0	−12.0	−10.5	−6.5	−7.0	−6.4	−6.0	−7.2	−10.13	−16.3	−5.5	10.8
14	−7.6	−8.9	−9.4	−9.2	−6.8	−3.1	−2.4	−3.0	−3.0	−2.6	−4.7	−5.7	−5.53	−9.5	−**2.2**	7.3
15	−5.1	−4.0	−4.5	−5.1	−5.3	−6.2	−5.3	−6.9	−7.9	−7.5	−7.2	−7.6	−6.05	−7.9	−**2.2**	5.7
16	−9.2	−12.4	−14.0	−13.4	−14.5	−14.4	−15.4	−15.7	−15.6	−15.0	−15.8	−15.3	−14.23	−15.7	−6.7	9.0
17	−15.0	−11.7	−12.4	−11.6	−12.4	−13.5	−13.9	−13.1	−13.0	−13.1	−13.4	−13.2	−13.03	−15.0	−11.5	3.5
18	−13.4	−13.2	−13.0	−13.6	−14.2	−14.1	−14.0	−14.1	−13.7	−13.6	−13.4	−13.7	−13.67	−15.0	−12.8	2.2
19	−13.1	−12.3	−12.4	−12.3	−12.5	−12.1	−14.6	−13.4	−13.2	−13.8	−14.0	−17.0	−13.39	−17.5	−12.1	5.4
20	−16.6	−15.2	−16.2	−16.8	−17.4	−19.4	−18.1	−18.3	−17.8	−18.4	−19.4	−20.6	−17.85	−20.6	−13.6	7.0
21	−21.6	−21.5	−21.2	−21.4	−21.5	−22.7	−21.4	−19.5	−19.0	−19.8	−18.0	−17.8	−20.45	−22.8	−16.9	5.9
22	−17.0	−17.8	−18.5	−17.6	−18.1	−18.3	−18.7	−18.0	−18.1	−18.0	−18.2	−18.5	−18.07	−18.9	−16.9	2.0
23	−18.3	−18.5	−18.8	−18.8	−19.2	−19.4	−19.6	−19.8	−20.3	−20.4	−21.4	−21.4	−19.66	−23.0	−17.8	5.2
24	−21.6	−21.6	−22.0	−23.0	−24.4	−23.6	−25.0	−24.0	−24.8	−24.4	−24.4	−21.8	−23.38	−25.8	−20.5	5.3
25	−20.8	−19.4	−20.5	−20.2	−20.8	−20.8	−21.0	−20.6	−20.1	−21.8	−22.4	−21.4	−20.82	−22.9	−19.4	3.5
26	−21.0	−21.4	−21.6	−22.8	−23.7	−22.6	−24.2	−24.0	−24.6	−26.2	−26.4	−25.8	−23.69	−26.9	−20.4	6.5
27	−25.0	−26.8	−26.8	−26.8	−26.7	−26.1	−26.2	−26.2	−26.2	−26.8	−27.2	−26.3	−26.43	−27.5	−24.8	2.7
28	−26.2	−26.4	−26.6	−27.2	−27.6	−27.6	−25.8	−25.6	−27.5	−26.8	−26.4	−26.8	−26.71	−27.9	−25.3	2.6
29	−27.2	−24.9	−25.5	−24.6	−23.6	−24.0	−23.1	−22.8	−23.2	−26.0	−26.2	−26.4	−24.79	−27.6	−22.5	5.1
30	−27.6	−26.2	−26.0	−28.5	−28.4	−25.8	−25.7	−26.8	−25.9	−25.7	−26.4	−26.3	−26.61	−28.7	−24.8	3.9
31	−26.4	−26.8	−26.5	−28.1	−27.9	−26.3	−26.0	−25.2	−25.8	−29.0	−29.1	−29.0	−27.18	−**29.9**	−23.8	6.1
Mean	−15.39	−15.28	−15.32	−15.17	−15.35	−15.10	−15.17	−14.81	−15.10	−15.28	−15.81	−15.82	−15.30	−17.8	−12.8	5.0

1898. November.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−28.7	−28.8	−28.0	−29.9	−26.0	−25.4	−26.8	−27.6	−27.5	−29.5	−30.7	−30.2	−28.26	−31.0	−25.3	5.7
2	−30.8	−28.7	−29.4	−28.3	−27.4	−30.6	−31.9	−29.4	−27.4	−27.4	−27.7	−26.8	−28.82	−31.6	−25.5	6.1
3	−27.2	−27.7	−27.2	−27.0	−27.2	−27.5	−27.4	−29.4	−28.9	−28.8	−28.7	−28.2	−27.93	−30.0	−25.5	4.5
4	−26.3	−26.9	−28.5	−28.7	−29.8	−31.4	−31.9	−30.6	−31.9	−30.8	−31.8	−31.8	−30.03	−32.5	−26.0	6.5
5	−32.6	−31.6	−31.6	−30.7	−29.4	−29.0	−31.0	−32.5	−32.7	−32.9	−31.4	−32.0	−31.45	−32.9	−29.0	3.9
6	−30.0	−29.4	−28.8	−27.8	−27.1	−27.2	−29.1	−28.8	−28.4	−27.7	−28.5	−30.0	−28.57	−32.7	−27.0	5.7
7	−29.2	−27.0	−27.3	−27.0	−26.1	−25.7	−27.2	−28.4	−28.9	−27.7	−24.0	−24.8	−26.94	−30.0	−20.5	9.5
8	−25.6	−27.6	−25.8	−21.8	−27.0	−23.5	−23.2	−23.8	−23.6	−27.0	−26.0	−24.2	−24.93	−27.9	−20.5	7.4
9	−27.1	−30.3	−26.2	−27.3	−27.2	−26.6	−28.0	−28.2	−29.0	−28.8	−28.4	−28.6	−27.98	−30.6	−25.0	5.6
10	−28.0	−28.6	−30.2	−28.6	−30.4	−30.6	−30.0	−29.6	−29.4	−29.8	−28.3	−30.8	−29.53	−30.8	−27.5	3.3
11	−30.5	−30.2	−29.2	−27.8	−28.8	−28.4	−29.2	−27.0	−27.6	−29.2	−29.0	−30.1	−28.92	−30.8	−26.5	4.3
12	−30.2	−31.4	−29.9	−30.6	−32.5	−30.0	−29.0	−30.2	−29.4	−27.0	−29.8	−29.0	−29.92	−33.2	−26.0	7.2
13	−30.4	−31.3	−30.4	−29.1	−29.2	−30.8	−31.3	−31.8	−32.0	−32.3	−32.0	−32.3	−31.02	−32.6	−26.0	6.6
14	−32.0	−32.8	−32.6	−31.7	−33.0	−32.5	−32.4	−33.0	−33.4	−33.4	−33.3	−33.5	−32.80	−35.4	−30.0	5.4
15	−34.2	−34.8	−34.2	−33.4	−33.0	−32.9	−32.0	−31.8	−31.5	−31.7	−32.2	−32.2	−32.83	−35.4	−31.0	4.4
16	−34.0	−33.2	−33.1	−33.0	−32.7	−33.3	−33.3	−33.1	−32.7	−32.5	−32.0	−32.8	−32.98	−34.0	−30.8	3.2
17	−33.0	−33.5	−33.5	−31.2	−31.0	−30.0	−29.8	−29.6	−31.0	−30.2	−30.0	−29.7	−31.04	−33.5	−29.5	4.0
18	−29.9	−30.0	−31.0	−30.5	−31.9	−33.1	−33.6	−33.6	−33.8	−34.0	−35.5	−33.1	−32.50	−35.5	−28.9	6.6
19	−33.0	−34.0	−35.5	−32.0	−31.3	−31.1	−31.0	−31.0	−31.1	−30.9	−30.5	−30.3	−31.81	−35.5	−29.8	5.7
20	−30.2	−31.5	−31.0	−31.8	−32.2	−32.0	−30.6	−29.6	−30.0	−29.0	−29.7	−30.0	−30.63	−32.9	−28.0	4.9
21	−29.6	−30.0	−29.0	−28.9	−26.8	−26.4	−26.1	−25.0	−23.8	−24.1	−23.3	−23.7	−26.39	−30.9	−19.8	11.1
22	−22.5	−24.0	−23.0	−20.0	−20.0	−18.6	−17.4	−19.0	−17.1	−14.8	−17.9	−20.0	−19.53	−24.1	−14.8	9.3
23	−17.2	−17.5	−17.0	−17.0	−16.7	−16.1	−15.7	−15.3	−16.8	−16.3	−17.4	−19.0	−16.83	−19.0	−14.6	4.4
24	−20.3	−22.4	−22.0	−23.5	−24.3	−24.3	−24.3	−25.1	−25.5	−26.9	−24.0	−25.0	−23.97	−27.4	−15.6	11.8
25	−26.0	−25.0	−27.1	−26.1	−28.2	−26.9	−28.1	−27.6	−25.7	−20.9	−19.8	−21.0	−25.03	−28.3	−19.5	8.8
26	−21.0	−23.0	−21.4	−22.1	−22.3	−22.2	−23.2	−26.9	−27.5	−27.4	−29.2	−28.2	−24.53	−29.4	−22.1	7.3
27	−29.0	−27.8	−25.3	−24.2	−27.1	−28.2	−27.8	−26.0	−28.3	−25.7	−25.5	−24.9	−26.65	−29.4	−23.1	6.3
28	−25.0	−23.8	−24.5	−23.7	−23.2	−23.4	−23.2	−23.9	−24.0	−24.1	−24.1	−25.2	−24.01	−25.2	−22.9	2.3
29	−26.0	−27.0	−28.2	−28.3	−29.4	−29.0	−30.4	−30.8	−31.2	−31.2	−32.1	−32.2	−29.65	−32.2	−23.6	8.6
30	−30.9	−31.0	−31.4	−31.5	−32.8	−32.3	−32.3	−32.5	−33.1	−33.9	−34.5	−34.7	−32.53	−34.7	−29.5	5.2
Mean	−28.35	−28.69	−28.41	−27.78	−28.13	−27.97	−28.24	−28.37	−28.44	−28.20	−28.24	−28.48	−28.28	−31.0	−24.8	6.2

1898. December.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$ $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−34.9	−35.2	−34.0	−34.1	−35.0	−33.8	−33.6	−33.7	−35.0	−35.3	−35.1	−36.4	−34.68	−36.4	−32.6	3.8
2	−36.0	−36.0	−36.0	−36.1	−35.0	−35.5	−35.2	−33.6	−33.9	−33.2	−34.0	−33.2	−34.81	−36.7	−32.3	4.4
3	−33.7	−32.9	−33.0	−32.5	−32.7	−31.6	−32.1	−31.7	−32.9	−32.0	−32.1	−31.8	−32.41	−33.7	−31.5	2.2
4	−31.3	−31.6	−31.7	−32.4	−30.6	−30.4	−29.8	−31.4	−31.2	−31.8	−31.0	−31.1	−31.19	−33.1	−29.8	3.3
5	−29.9	−30.0	−29.6	−29.0	−27.1	−29.5	−28.2	−28.9	−29.0	−28.6	−29.0	−29.0	−28.98	−31.9	−26.5	5.4
6	−31.4	−29.8	−31.8	−30.4	−32.4	−32.0	−30.0	−30.9	−32.9	−33.0	−31.7	−31.0	−31.44	−34.2	−27.6	6.6
7	−32.0	−31.2	−30.5	−30.1	−30.7	−30.0	−30.2	−33.8	−32.0	−33.6	−31.3	−32.2	−31.48	−34.4	−29.6	4.8
8	−33.0	−34.6	−33.6	−34.0	−35.2	−35.5	−32.5	−34.2	−34.8	−34.5	−35.0	−34.4	−34.28	−35.5	−29.5	6.0
9	−35.3	−33.4	−33.8	−35.7	−36.5	−35.0	−35.0	−33.2	−34.2	−33.8	−34.8	−34.5	−34.60	−37.6	−32.5	5.1
10	−34.0	−34.5	−35.5	−33.3	−32.4	−34.0	−32.0	−32.2	−31.0	−31.1	−32.4	−31.8	−32.85	−35.5	−29.5	6.0
11	−30.2	−31.0	−29.9	−30.6	−31.1	−32.0	−29.9	−30.0	−32.1	−31.5	−33.1	−32.0	−31.12	−35.5	−29.5	6.0
12	−32.8	−33.0	−34.3	−35.3	−34.0	−34.6	−33.7	−34.9	−36.1	−36.2	−35.6	−36.3	−34.73	−36.3	−31.5	4.8
13	−36.3	−36.5	−35.5	−35.2	−35.2	−33.7	−35.0	−34.6	−33.8	−32.8	−33.0	−32.8	−34.53	−36.8	−32.1	4.7
14	−34.0	−34.8	−34.7	−33.8	−33.1	−33.0	−33.0	−32.8	−33.5	−33.0	−32.2	−32.4	−33.36	−33.8	−32.3	1.5
15	−32.9	−31.1	−29.9	−30.0	−27.8	−23.9	−23.6	−22.8	−21.1	−20.6	−17.7	−21.5	−25.24	−32.9	**−17.7**	15.2
16	−21.8	−21.4	−22.4	−22.8	−23.0	−23.0	−24.1	−24.7	−26.1	−27.1	−24.4	−28.8	−24.13	−28.8	−18.6	10.2
17	−29.6	−28.5	−25.2	−26.5	−26.8	−26.4	−29.8	−28.0	−30.5	−29.1	−32.0	−31.0	−28.62	−33.2	−23.5	9.7
18	−30.5	−32.4	−27.6	−31.0	−30.2	−28.5	−26.4	−24.7	−24.2	−26.4	−28.0	−26.2	−28.01	−33.2	−23.4	9.8
19	−27.5	−28.0	−29.0	−30.6	−30.7	−31.4	−32.5	−31.4	−32.3	−30.1	−33.0	−34.7	−30.93	−34.7	−23.4	11.3
20	−34.8	−34.2	−34.0	−33.0	−32.7	−34.0	−33.7	−35.5	−34.0	−35.5	−31.2	−31.8	−33.70	−35.5	−29.5	6.0
21	−30.6	−34.5	−30.8	−30.7	−31.8	−32.0	−34.3	−30.8	−32.8	−33.3	−33.7	−33.5	−32.40	−34.5	−29.5	5.0
22	−34.1	−33.0	−33.3	−33.5	−34.0	−34.2	−33.4	−34.3	−36.4	−36.0	−35.9	−36.2	−34.53	−36.4	−32.5	3.9
23	−36.4	−36.6	−33.4	−33.0	−32.1	−32.6	−32.7	−32.7	−34.8	−34.0	−35.7	−35.8	−34.15	−36.6	−32.1	4.5
24	−35.9	−36.0	−35.2	−35.9	−34.5	−35.0	−34.3	−34.4	−33.8	−32.2	−29.7	−29.6	−33.88	−36.6	−28.6	8.0
25	−29.5	−29.8	−30.1	−29.0	−29.8	−30.4	−30.3	−30.1	−30.2	−28.8	−28.3	−28.5	−29.57	−33.0	−27.6	5.4
26	−28.2	−29.3	−29.3	−29.6	−29.6	−29.5	−30.4	−30.1	−32.5	−31.2	−30.5	−28.8	−29.92	−33.7	−27.6	6.1
27	−29.7	−28.9	−28.8	−28.2	−28.9	−28.4	−30.0	−30.9	−31.2	−31.6	−31.7	−29.8	−29.84	−31.5	−27.5	4.0
28	−29.5	−30.2	−31.7	−31.0	−30.4	−30.4	−30.0	−31.5	−31.8	−29.6	−30.3	−30.4	−30.57	−31.7	−28.3	3.4
29	−28.2	−34.0	−34.6	−35.3	−34.8	−34.0	−35.3	−34.6	−34.0	−33.3	−33.1	−33.5	−33.73	−35.3	−28.2	7.1
30	−35.4	−36.0	−36.2	−36.1	−36.4	−36.0	−33.1	−33.0	−36.7	−32.5	−32.7	−34.4	−34.88	−37.5	−31.7	5.8
31	−35.5	−35.1	−36.2	−35.7	−37.4	−32.6	−33.1	−35.3	−36.0	−36.9	−36.0	−36.8	−35.50	**−38.5**	−32.6	5.9
Mean	−32.09	−32.37	−31.99	−32.98	−32.00	−31.71	−31.52	−31.64	−32.28	−31.87	−31.75	−31.94	−31.93	−34.7	−28.7	6.0

1899. January.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−38.2	−38.1	−37.1	−38.8	−38.0	−40.2	−38.9	−40.9	−41.5	−39.7	−40.0	−41.2	−39.38	−41.7	−34.5	7.2
2	−42.0	−41.0	−40.1	−42.8	−41.6	−41.3	−40.0	−41.4	−39.9	−37.5	−38.0	−36.5	−40.18	−42.8	−36.5	6.3
3	−38.2	−39.0	−37.0	−35.7	−35.0	−36.0	−36.1	−35.8	−35.0	−34.0	−31.2	−33.0	−35.50	−39.9	−31.2	8.7
4	−34.2	−34.2	−34.1	−35.4	−34.0	−36.6	−35.0	−35.0	−35.0	−36.2	−36.1	−35.2	−35.08	−36.5	−34.0	2.5
5	−34.7	−36.0	−35.5	−34.1	−33.1	−33.0	−33.3	−34.7	−35.4	−34.7	−36.1	−34.3	−34.58	−38.3	−33.0	5.3
6	−36.8	−38.1	−37.2	−36.1	−38.2	−36.5	−36.2	−36.0	−33.6	−33.0	−36.4	−34.0	−36.01	−38.8	−33.0	5.8
7	−33.5	−33.0	−33.2	−33.0	−33.1	−34.0	−32.3	−32.0	−34.1	−33.4	−32.3	−31.4	−32.94	−42.2	−31.4	10.8
8	−32.0	−32.8	−29.5	−25.8	−26.2	−27.0	−30.7	−31.0	−33.5	−31.2	−32.5	−35.0	−30.60	−35.0	−25.8	9.2
9	−34.3	−31.5	−31.5	−31.2	−31.8	−33.4	−32.8	−34.1	−32.0	−33.0	−33.0	−32.2	−32.57	−35.0	−31.2	3.8
10	−33.9	−34.1	−32.3	−33.1	−31.4	−33.3	−30.7	−33.0	−30.9	−32.0	−27.5	−33.0	−32.10	−34.0	−26.5	7.5
11	−31.0	−26.9	−31.0	−32.0	−31.8	−28.9	−27.3	−31.4	−30.1	−29.0	−25.8	−28.2	−29.45	−35.8	−26.5	9.3
12	−22.4	−21.7	−26.0	−26.7	−22.2	−23.1	−23.1	−27.5	−22.2	−23.0	−23.8	−28.4	−24.17	−30.4	−21.5	8.9
13	−28.8	−29.3	−28.8	−27.5	−27.8	−29.6	−29.9	−29.5	−30.8	−31.0	−32.4	−31.8	−29.77	−32.4	−27.5	4.9
14	−30.9	−31.2	−32.4	−32.0	−33.7	−30.7	−32.2	−32.6	−33.4	−31.6	−32.9	−34.0	−32.30	−34.0	−29.9	4.1
15	−33.7	−33.2	−33.3	−33.0	−32.4	−32.9	−33.0	−33.4	−32.5	−32.9	−34.6	−34.0	−33.24	−34.6	−30.2	4.4
16	−34.4	−31.3	−31.5	−32.6	−33.8	−29.2	−32.3	−31.5	−32.0	−31.5	−32.9	−34.2	−32.27	−34.5	−28.7	5.8
17	−32.8	−33.8	−35.3	−32.7	−33.2	−33.8	−33.5	−34.1	−34.1	−34.2	−35.6	−35.9	−34.08	−35.0	−30.8	4.2
18	−36.2	−34.0	−32.4	−30.5	−29.0	−29.2	−30.6	−32.7	−30.3	−31.1	−30.4	−30.2	−31.38	−36.6	−27.8	8.8
19	−30.7	−31.0	−30.9	−30.1	−30.0	−29.7	−30.0	−30.8	−31.0	−32.1	−34.0	−34.4	−31.23	−34.4	−29.0	5.4
20	−34.8	−35.2	−35.5	−36.3	−36.2	−37.5	−35.0	−34.9	−35.0	−34.3	−30.6	−31.7	−34.75	−37.5	−27.8	9.7
21	−31.6	−32.3	−32.3	−31.2	−32.1	−30.5	−29.7	−32.3	−32.9	−34.5	−34.7	−34.7	−32.40	−34.7	−29.1	5.6
22	−34.8	−34.6	−35.4	−34.3	−34.2	−35.0	−35.0	−35.7	−35.7	−35.3	−34.2	−35.0	−34.93	−35.9	−33.2	2.7
23	−33.5	−35.0	−36.8	−36.8	−37.7	−37.0	−35.6	−34.8	−36.4	−37.1	−34.4	−35.9	−35.92	−37.7	−33.4	4.3
24	−35.2	−34.4	−35.1	−36.0	−35.3	−35.8	−36.8	−37.2	−38.0	−38.1	−37.2	−36.5	−36.30	−38.2	−33.9	4.3
25	−36.8	−35.6	−36.8	−35.3	−40.7	−39.8	−40.2	−38.9	−40.0	−39.1	−40.0	−39.6	−38.57	−40.5	−34.4	6.1
26	−39.9	−39.6	−40.4	−38.3	−39.6	−39.7	−38.8	−41.8	−40.3	−39.9	−41.0	−39.0	−39.86	−39.7	−38.3	1.4
27	−42.6	−42.0	−40.5	−40.2	−40.6	−40.0	−41.0	−40.6	−40.6	−40.0	−40.1	−40.0	−40.68	−42.6	−40.0	2.6
28	−37.8	−37.7	−35.1	−37.0	−36.8	−34.9	−30.2	−27.3	−27.5	−26.3	−26.2	−25.0	−31.82	−39.9	−25.0	14.9
29	−25.8	−25.5	−26.2	−26.0	−26.2	−28.1	−28.8	−28.5	−30.1	−30.5	−30.5	−30.4	−28.05	−30.5	−25.5	5.0
30	−30.8	−30.9	−30.6	−31.0	−31.2	−32.3	−31.7	−31.9	−28.4	−25.0	−23.5	−23.5	−29.23	−32.8	−23.5	9.3
31	−24.8	−24.0	−29.1	−28.1	−29.0	−26.3	−26.6	−27.6	−27.3	−27.2	−29.0	−29.0	−27.33	−29.0	−24.0	5.0
Mean	−33.77	−33.45	−33.64	−33.34	−33.42	−33.40	−33.14	−33.84	−33.53	−33.17	−33.33	−33.46	−33.46	−36.5	−30.2	6.3

1899. February.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C°.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−29.0	−29.0	−29.8	−30.5	−31.8	−31.5	−32.4	−32.0	−31.5	−31.9	−28.6	−29.1	−30.59	−34.0	−28.6	5.4
2	−31.9	−32.2	−29.5	−30.5	−30.8	−29.5	−27.4	−27.9	−28.0	−29.9	−31.0	−31.8	−30.03	−33.8	−27.2	6.6
3	−33.2	−33.4	−34.0	−32.0	−31.1	−30.0	−30.1	−27.4	−29.2	−27.0	−27.9	−25.4	−30.06	−34.1	−24.6	9.5
4	−26.3	−27.2	−28.7	−28.5	−30.3	−28.2	−31.0	−30.1	−30.9	−32.8	−31.4	−33.4	−29.90	−33.4	−24.6	8.8
5	−32.2	−31.8	−29.8	−30.4	−27.7	−31.2	−32.7	−32.6	−32.7	−31.5	−30.7	−29.0	−31.03	−33.3	−27.1	6.2
6	−30.2	−30.3	−32.4	−30.7	−29.9	−29.5	−30.3	−30.2	−33.2	−34.7	−34.1	−35.2	−31.73	−35.2	−28.6	6.6
7	−34.1	−30.5	−32.4	−32.3	−31.6	−31.8	−33.3	−34.0	−34.4	−36.0	−36.4	−35.4	−33.52	−37.0	−29.6	7.4
8	−36.0	−35.2	−36.1	−36.7	−36.9	−38.1	−38.4	−36.6	−35.6	−38.8	−40.4	−39.9	−37.32	**−40.4**	−34.5	5.9
9	−36.6	−32.7	−29.5	−25.0	−23.8	−30.6	−33.1	−33.6	−31.8	−29.8	−33.0	−26.4	−30.49	−40.0	−23.8	16.2
10	−24.8	−26.6	−26.1	−25.0	−25.3	−27.0	−29.0	−29.7	−30.3	−29.7	−29.3	−29.0	−27.65	−30.9	−24.8	6.1
11	−32.6	−33.7	−29.0	−29.4	−29.3	−29.3	−29.5	−30.0	−30.0	−31.1	−31.3	−32.1	−30.61	−33.9	−29.0	4.9
12	−30.0	−30.0	−33.0	−34.5	−30.6	−32.5	−28.7	−28.9	−29.8	−33.6	−35.0	−33.1	−31.64	−35.0	−28.1	6.9
13	−33.3	−33.0	−33.0	−33.0	−32.3	−33.6	−35.3	−35.3	−36.0	−36.7	−33.9	−36.3	−34.31	−37.1	−31.5	5.6
14	−36.7	−37.0	−34.5	−33.5	−34.2	−35.2	−35.7	−31.2	−32.0	−29.0	−33.1	−31.2	−33.61	−37.3	−28.0	9.3
15	−30.2	−29.0	−28.1	−29.1	−28.7	−30.1	−28.0	−27.9	−26.1	−23.4	−27.0	−26.0	−27.80	−33.4	**−22.8**	10.6
16	−27.6	−28.2	−29.0	−29.2	−31.1	−32.9	−32.7	−33.0	−34.2	−32.1	−32.7	−34.7	−31.45	−34.7	−27.6	7.1
17	−33.6	−33.0	−32.4	−32.0	−30.0	−30.0	−30.0	−30.4	−31.1	−31.0	−30.5	−30.0	−31.17	−35.0	−29.1	5.9
18	−29.7	−30.5	−33.0	−33.6	−28.4	−27.2	−26.2	−26.1	−26.7	−26.7	−25.3	−26.3	−28.31	−33.6	−23.6	10.0
19	−25.6	−26.4	−25.0	−27.5	−30.0	−31.0	−30.3	−30.4	−32.0	−32.2	−32.0	−32.1	−29.54	−32.2	−23.6	8.6
20	−33.1	−32.6	−34.7	−34.2	−34.5	−35.8	−35.3	−34.1	−34.4	−34.1	−34.7	−34.0	−34.29	−36.1	−31.3	4.8
21	−33.4	−34.2	−35.4	−35.5	−34.2	−33.6	−33.1	−32.4	−32.7	−33.5	−33.0	−32.7	−33.64	−35.5	−31.7	3.8
22	−33.4	−33.0	−33.0	−34.8	−34.4	−33.2	−34.0	−33.2	−34.7	−34.0	−36.6	−37.0	−34.29	−37.0	−31.8	5.2
23	−37.0	−34.1	−35.8	−36.3	−35.1	−35.6	−37.4	−37.7	−37.7	−36.8	−37.5	−37.1	−36.51	−38.2	−33.1	5.1
24	−37.3	−37.0	−37.8	−38.4	−37.0	−35.5	−34.3	−34.3	−34.0	−33.2	−32.8	−33.2	−35.40	−38.4	−31.2	7.2
25	−33.0	−32.1	−33.6	−34.9	−35.0	−34.1	−32.8	−31.5	−33.7	−31.7	−33.4	−35.0	−33.40	−35.5	−30.6	4.9
26	−32.2	−32.0	−32.8	−33.9	−34.0	−34.1	−33.0	−33.2	−35.6	−35.5	−35.4	−35.1	−33.90	−36.4	−30.6	5.8
27	−35.2	−36.6	−37.2	−36.1	−37.0	−36.9	−35.2	−36.0	−35.0	−37.1	−33.5	−34.0	−35.82	−37.5	−32.7	4.8
28	−39.0	−38.1	−38.5	−37.6	−38.9	−37.2	−35.2	−37.7	−38.6	−37.5	−37.0	−38.0	−37.78	−39.6	−35.2	4.4
Mean	−32.40	−32.12	−32.29	−32.33	−31.93	−32.33	−32.30	−32.05	−32.57	−32.55	−32.70	−32.56	−32.34	−35.6	−28.7	6.9

1899. March.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−37.8	−37.5	−38.4	−37.6	−36.7	−35.1	−36.2	−34.2	−36.7	−34.0	−34.0	−33.2	−35.95	−39.8	−33.2	6.6
2	−35.5	−36.1	−34.3	−32.5	−32.5	−32.3	−35.8	−34.9	−30.6	−31.9	−30.0	−33.2	−33.30	−36.1	−29.2	6.9
3	−37.2	−37.5	−35.2	−33.0	−33.2	−32.9	−32.6	−34.1	−35.5	−32.1	−33.4	−33.3	−34.17	−38.0	−31.5	6.5
4	−33.8	−33.6	−33.2	−34.2	−31.0	−28.2	−28.6	−28.7	−28.7	−30.1	−32.2	−34.5	−31.40	−34.5	−27.1	7.4
5	−34.1	−31.9	−31.8	−32.6	−32.9	−33.2	−33.0	−35.4	−35.1	−35.3	−34.3	−37.2	−33.90	−37.2	−29.3	7.9
6	−36.0	−36.3	−37.1	−37.5	−36.3	−35.5	−34.7	−37.0	−36.3	−37.0	−38.2	−37.0	−36.58	−40.2	−34.7	5.5
7	−39.2	−39.3	−39.4	−40.1	−40.0	−40.2	−37.3	−36.0	−36.3	−37.0	−37.4	−37.2	−38.28	**−41.4**	−36.0	5.4
8	−37.0	−36.5	−35.0	−35.8	−35.9	−37.3	−37.6	−39.0	−39.5	−40.5	−39.4	−40.3	−37.82	−40.5	−35.0	5.5
9	−40.1	−41.0	−39.8	−40.3	−40.3	−39.3	−37.4	−35.5	−35.5	−35.8	−36.8	−40.7	−38.54	−41.2	−35.5	5.7
10	−39.7	−39.1	−37.2	−36.1	−37.0	−37.1	−37.2	−37.2	−37.8	−37.0	−39.0	−39.3	−37.81	−40.2	−36.1	4.1
11	−40.1	−40.8	−40.3	−40.0	−39.0	−39.8	−39.0	−38.8	−39.4	−38.7	−38.0	−37.9	−39.32	−41.1	−37.9	3.2
12	−37.1	−35.3	−40.1	−41.0	−37.4	−38.5	−36.9	−37.0	−37.0	−35.5	−36.4	−37.4	−37.47	−41.0	−35.3	5.7
13	−32.0	−37.9	−32.8	−33.2	−32.1	−32.1	−34.3	−31.2	−29.4	−28.5	−34.2	−35.4	−32.76	−34.3	−28.5	5.8
14	−34.0	−34.2	−34.0	−34.0	−34.0	−35.3	−34.4	−37.0	−36.1	−36.2	−36.2	−37.0	−35.20	−37.5	−34.0	3.5
15	−37.1	−37.0	−39.0	−34.9	−37.0	−36.2	−34.6	−34.0	−33.3	−36.0	−35.2	−34.6	−35.75	−39.0	−32.2	6.8
16	−36.2	−38.5	−38.0	−36.9	−36.7	−36.0	−34.6	−37.3	−36.1	−38.9	−37.2	−37.0	−36.95	−38.9	−34.2	4.7
17	−38.8	−38.5	−37.5	−38.4	−38.0	−34.5	−35.0	−36.6	−35.3	−39.2	−38.7	−39.6	−37.51	−39.6	−34.5	5.1
18	−38.4	−37.3	−35.6	−35.0	−34.0	−32.0	−32.0	−33.9	−33.0	−32.6	−35.2	−34.0	−34.42	−39.3	−32.0	7.3
19	−35.8	−31.2	−33.0	−31.1	−32.6	−31.0	−27.5	−27.9	−26.4	−25.7	−28.0	−27.0	−29.77	−35.8	−25.1	10.7
20	−32.0	−30.9	−30.5	−32.9	−29.5	−30.3	−28.2	−27.0	−28.8	−28.0	−26.2	−26.0	−29.19	−33.2	−23.8	9.4
21	−25.0	−24.3	−25.0	−24.8	−24.4	−21.9	−23.0	−24.5	−24.5	−22.0	−22.0	−19.1	−23.38	−28.3	−18.1	10.2
22	−20.5	−22.8	−21.4	−21.0	−23.0	−20.0	−19.3	−22.5	−21.2	−18.3	−20.8	−21.2	−21.00	−23.6	−16.7	6.9
23	−20.0	−18.9	−19.8	−15.2	−18.6	−17.0	−21.5	−25.3	−26.8	−27.0	−23.0	−27.5	−21.72	−27.5	**−14.5**	13.0
24	−25.8	−26.2	−23.0	−28.8	−29.1	−29.5	−26.0	−24.7	−24.6	−25.7	−27.5	−28.0	−26.58	−31.6	−21.5	10.1
25	−31.4	−31.9	−32.4	−29.6	−28.0	−22.9	−22.1	−23.2	−20.8	−21.4	−22.6	−23.2	−25.79	−32.4	−20.5	11.9
26	−18.5	−20.4	−19.7	−19.3	−17.0	−18.3	−19.4	−20.1	−17.5	−17.0	−18.0	−20.3	−18.79	−26.5	−17.0	9.5
27	−21.6	−21.8	−25.0	−26.5	−21.4	−21.2	−23.1	−26.0	−26.1	−26.5	−27.3	−24.6	−24.26	−27.3	−21.0	6.3
28	−25.0	−25.7	−26.0	−26.4	−24.8	−26.0	−25.5	−27.6	−25.0	−25.4	−27.5	−26.0	−25.91	−30.8	−22.4	8.4
29	−27.0	−27.6	−30.0	−27.0	−27.4	−26.8	−25.3	−25.6	−26.2	−26.8	−26.3	−27.0	−26.92	−30.0	−25.1	4.9
30	−27.0	−26.5	−26.2	−26.1	−26.4	−25.0	−25.8	−27.2	−25.0	−26.2	−27.0	−26.8	−26.27	−27.5	−21.6	5.9
31	−25.2	−26.0	−26.3	−26.1	−24.0	−24.5	−23.4	−22.7	−23.4	−23.6	−24.0	−25.5	−24.56	−28.3	−22.3	6.0
Mean	−32.22	−32.34	−32.16	−31.87	−31.30	−30.64	−30.36	−31.04	−30.58	−30.64	−31.16	−31.65	−31.33	−34.9	−27.9	7.0

1899. April.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−23.7	−25.6	−25.8	−26.0	−24.5	−24.6	−23.8	−22.8	−23.5	−24.6	−25.8	−26.0	−24.73	−26.8	−22.5	4.3
2	−26.1	−26.3	−27.5	−26.6	−26.0	−26.4	−26.3	−27.1	−26.9	−26.4	−26.8	−26.6	−26.58	−28.7	−26.0	2.7
3	−26.7	−29.8	−28.0	−28.5	−28.3	−28.6	−27.5	−27.0	−28.6	−28.0	−31.2	−29.8	−28.50	−31.2	−25.0	6.2
4	−30.0	−32.2	−34.6	−32.4	−30.7	−30.6	−28.3	−30.1	−31.4	−30.1	−30.2	−29.6	−30.85	−34.7	−26.4	8.3
5	−27.7	−28.0	−28.2	−28.2	−26.8	−27.0	−25.6	−27.4	−27.2	−27.6	−30.4	−32.0	−28.01	−34.7	−23.6	11.1
6	−32.4	−34.9	−32.9	−31.9	−29.3	−30.0	−28.7	−27.9	−28.2	−28.3	−27.0	−26.2	−29.81	−34.9	−22.5	12.4
7	−25.9	−24.9	−24.5	−23.1	−20.8	−18.9	−18.7	−19.6	−20.0	−22.3	−22.4	−21.7	−21.90	−28.0	−17.6	10.4
8	−21.4	−22.4	−22.0	−21.6	−22.0	−22.0	−22.5	−22.9	−25.0	−24.7	−25.6	−25.8	−23.16	−25.6	−20.5	5.1
9	−25.8	−26.1	−27.4	−24.4	−24.8	−21.5	−19.3	−22.4	−24.7	−24.7	−27.4	−25.6	−24.51	−27.5	−18.6	8.9
10	−26.0	−28.1	−25.8	−24.0	−23.0	−22.3	−20.8	−21.7	−21.3	−20.7	−20.1	−20.4	−22.85	−28.1	−18.9	9.2
11	−19.0	−20.0	−19.8	−21.0	−20.6	−19.2	−19.2	−18.4	−18.7	−19.6	−19.8	−22.8	−19.84	−22.8	−17.2	5.6
12	−21.8	−20.0	−19.8	−21.0	−20.2	−18.8	−18.0	−17.0	−18.4	−22.1	−22.6	−21.8	−20.13	−22.6	−16.1	6.5
13	−20.5	−20.8	−19.5	−18.4	−17.0	−17.7	−18.1	−18.1	−18.3	−18.6	−19.0	−21.8	−18.98	−21.8	−16.0	5.8
14	−22.0	−22.7	−20.9	−21.4	−19.0	−18.3	−18.5	−17.6	−16.4	−17.0	−16.6	−15.8	−18.85	−22.7	−15.2	7.5
15	−17.7	−18.0	−18.4	−19.2	−17.3	−17.4	−16.4	−16.3	−16.4	−15.5	−16.1	−15.6	−17.03	−20.5	−13.7	6.8
16	−15.8	−15.4	−15.2	−13.2	−11.0	−11.2	−11.0	−10.1	−8.0	−8.0	−10.7	−11.0	−11.72	−16.6	−7.5	9.1
17	−12.0	−9.8	−9.1	−7.4	−8.3	−10.2	−11.1	−13.6	−14.6	−16.4	−18.7	−20.3	−12.63	−20.3	−7.2	13.1
18	−21.3	−22.2	−25.0	−23.7	−21.0	−22.3	−21.9	−21.1	−21.2	−23.1	−19.9	−20.9	−21.97	−25.2	−18.8	6.4
19	−24.1	−23.6	−25.0	−23.0	−18.6	−20.2	−22.4	−22.0	−22.0	−21.7	−23.0	−23.8	−22.45	−25.1	−18.0	7.1
20	−23.4	−21.4	−20.6	−19.8	−20.3	−20.4	−19.8	−19.7	−19.7	−19.6	−20.0	−21.4	−20.51	−23.8	−19.0	4.8
21	−20.3	−20.9	−19.7	−19.5	−22.0	−22.7	−21.2	−22.2	−21.9	−24.4	−24.8	−25.2	−22.07	−25.2	−18.5	6.7
22	−23.8	−22.4	−23.9	−24.4	−22.8	−23.6	−23.2	−21.6	−21.4	−21.8	−23.3	−22.8	−22.92	−26.4	−20.1	6.3
23	−24.4	−25.2	−21.1	−19.2	−20.7	−20.0	−20.8	−17.9	−18.9	−18.8	−22.2	−23.0	−21.02	−25.8	−16.5	9.3
24	−25.2	−19.5	−17.2	−17.3	−15.8	−16.3	−16.8	−15.8	−16.1	−16.9	−16.7	−20.0	−17.80	−24.9	−14.0	10.9
25	−18.8	−17.1	−19.8	−18.8	−19.0	−17.2	−15.9	−17.5	−16.2	−17.6	−20.4	−21.2	−18.29	−21.2	−14.4	6.8
26	−22.8	−23.1	−22.2	−21.8	−21.5	−20.7	−20.6	−20.2	−20.6	−21.3	−22.2	−23.4	−21.70	−23.4	−18.2	5.2
27	−22.6	−20.3	−18.3	−16.9	−16.3	−18.2	−17.4	−16.0	−16.8	−16.6	−13.6	−14.6	−17.30	−24.3	−12.0	12.3
28	−15.0	−14.4	−14.6	−12.0	−12.9	−12.7	−14.0	−10.7	−9.6	−13.3	−12.4	−13.6	−12.93	−16.1	−9.6	6.5
29	−13.1	−13.3	−14.8	−16.4	−15.5	−14.8	−15.2	−15.0	−14.8	−12.4	−16.6	−18.0	−14.99	−18.0	−11.2	6.8
30	−15.8	−15.2	−14.8	−15.7	−14.0	−12.2	−14.1	−15.4	−15.6	−17.0	−17.2	−16.5	−15.29	−19.6	−9.8	9.8
Mean	−22.04	−22.12	−21.88	−21.23	−20.33	−20.20	−19.90	−19.84	−20.08	−20.64	−21.42	−21.91	−20.97	−24.9	−17.1	7.7

1899. May.

Rice-Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	-18.2	-16.9	-15.3	-16.1	-17.2	-17.1	-16.2	-15.9	-14.9	-15.2	-15.6	-15.9	-16.21	-19.6	-14.2	5.4
2	-16.2	-17.6	-18.2	-17.6	-16.8	-16.2	-16.0	-16.7	-17.9	-18.6	-19.0	-20.0	-17.57	-20.0	-14.0	6.0
3	-20.7	-21.3	-19.9	-18.8	-19.0	-18.1	-18.5	-19.2	-18.3	-21.1	-22.7	-24.6	-20.18	-24.6	-16.1	8.5
4	-25.7	-22.5	-21.7	-21.5	-18.2	-16.3	-17.2	-16.1	-19.1	-19.8	-19.3	-22.1	-19.96	**-25.5**	-14.6	10.9
5	-19.4	-21.6	-19.0	-18.0	-18.2	-17.8	-17.6	-16.7	-16.4	-19.0	-20.5	-22.2	-18.87	-22.2	-15.2	7.0
6	-23.0	-21.3	-21.4	-18.7	-16.5	-13.1	-16.1	-12.1	-11.2	-12.2	-12.8	-20.1	-16.54	-23.0	-12.7	10.3
7	-18.9	-17.0	-15.8	-14.0	-13.3	-13.3	-15.6	-13.8	-14.0	-14.6	-14.9	-16.4	-15.13	-20.3	-12.4	7.9
8	-14.5	-14.6	-12.1	-12.8	-14.1	-13.1	-13.1	-12.6	-12.6	-12.2	-12.7	-13.6	-13.17	-16.8	-11.8	5.0
9	-10.4	-12.6	-9.6	-8.6	-8.8	-8.7	-8.7	-8.2	-8.4	-8.2	-8.4	-7.8	-9.03	-14.4	-6.5	7.9
10	-12.3	-7.6	-7.8	-7.6	-7.8	-6.6	-7.5	-7.9	-7.3	-7.6	-8.5	-6.0	-7.88	-12.3	-5.5	6.8
11	-6.8	-6.0	-8.4	-7.5	-7.4	-7.3	-6.6	-7.2	-7.2	-8.5	-8.5	-8.8	-7.52	-8.8	-5.5	3.3
12	-9.2	-9.2	-9.4	-10.6	-9.6	-9.7	-9.8	-9.3	-9.4	-9.4	-8.4	-6.5	-9.21	-10.6	-3.8	6.8
13	-5.6	-4.9	-5.0	-4.0	-3.2	-3.4	-3.0	-1.6	-0.8	-2.8	-4.4	-5.5	-3.68	-9.3	0.0	9.3
14	-6.4	-7.3	-8.1	-7.5	-7.9	-7.4	-7.4	-7.5	-7.6	-7.9	-9.2	-10.8	-7.92	-10.8	-6.4	4.4
15	-8.9	-9.6	-8.6	-7.3	-7.3	-6.4	-6.1	-6.6	-6.8	-7.5	-7.6	-6.1	-7.40	-10.1	-4.7	5.4
16	-6.1	-5.9	-5.4	-5.1	-4.6	-4.4	-4.2	-4.6	-5.2	-5.9	-6.4	-8.0	-5.48	-8.0	-3.3	4.7
17	-8.2	-8.0	-7.4	-6.7	-5.9	-4.4	-5.8	-6.0	-8.0	-8.6	-9.0	-9.2	-7.27	-9.2	-3.1	6.1
18	-8.6	-8.6	-8.8	-7.5	-6.2	-5.0	-1.6	-5.8	-5.0	-6.4	-6.6	-7.4	-6.46	-9.4	-1.2	8.2
19	-7.1	-7.1	-5.9	-5.1	-4.3	-3.6	-0.8	-0.6	-2.5	-2.0	-4.3	-4.2	-3.96	-7.9	0.0	7.9
20	-4.1	-4.1	-1.2	-5.0	-3.5	-3.5	-1.2	-2.6	-2.3	-3.0	-3.3	-5.0	-3.23	-5.0	-0.5	4.5
21	-4.2	-5.0	-4.8	-2.0	-1.4	-1.1	-0.9	-2.0	-3.4	-2.2	-3.0	-3.4	-2.78	-6.1	2.2	8.3
22	-4.8	-3.6	-4.2	-4.2	-3.9	-3.8	-3.8	-4.0	-4.6	-5.2	-5.0	-5.4	-4.37	-5.4	-1.9	3.5
23	-6.0	-5.5	-4.7	-4.0	-3.7	-1.2	-4.2	-4.3	-3.4	-2.8	-4.5	-4.2	-4.04	-6.6	-0.8	5.8
24	-4.4	-6.6	-6.4	-7.4	-5.8	-5.4	-3.8	-3.6	-3.0	-3.4	-5.0	-4.2	-4.92	-7.4	-2.7	4.7
25	-5.0	-4.3	-4.6	-4.4	-4.1	-4.0	-3.6	-3.8	-4.4	-3.0	-5.2	-4.2	-4.22	-6.2	-2.2	4.0
26	-4.2	-3.2	-2.6	-5.0	-5.2	-4.2	-3.0	-2.3	-1.5	-4.2	-5.2	-5.8	-3.87	-5.8	-0.2	5.6
27	-6.2	-4.9	-4.5	-4.2	-3.4	-4.4	-2.4	-3.7	-2.4	-3.5	-6.8	-8.3	-4.56	-8.3	-1.2	7.1
28	-9.2	-7.5	-7.2	-6.4	-6.0	-5.8	-5.7	-5.7	-5.2	-6.4	-6.6	-7.3	-6.58	-9.5	-5.1	4.4
29	-6.7	-3.4	-1.9	-2.4	-2.6	0.9	-0.7	-1.6	-1.2	-2.8	-3.9	-7.1	-2.78	-7.1	**2.6**	9.7
30	-6.6	-5.4	-4.2	-5.0	-3.8	-3.8	-1.9	-2.2	-3.2	-3.4	-3.2	-3.6	-3.86	-7.1	-1.1	6.0
31	-4.8	-4.2	-0.9	-0.2	0.0	0.0	1.2	1.5	1.1	0.8	0.2	-1.2	-0.54	-4.9	1.5	6.4
Mean	-10.08	-9.59	-8.87	-8.55	-8.05	-7.36	-7.15	-7.18	-7.29	-7.95	-8.72	-9.51	-8.36	-11.7	-5.2	6.5

1899. June.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−3.4	−3.4	−3.3	−2.3	−1.4	−0.2	0.0	1.9	1.6	0.0	−0.9	−4.8	−1.35	**−4.8**	3.8	8.6
2	−3.6	−2.0	−1.8	−0.8	0.2	1.5	1.2	1.0	1.1	0.5	1.4	1.1	−0.02	−4.6	3.4	8.0
3	0.3	5.1	6.3	4.2	5.6	7.2	6.7	3.0	4.8	3.6	1.0	0.2	4.00	0.2	9.0	8.8
4	−0.6	−1.4	−0.4	0.3	−0.6	−0.3	0.6	1.7	0.2	1.1	−0.2	−1.3	−0.08	−1.4	2.2	3.6
5	−1.4	−1.5	−1.5	−1.0	−1.1	−0.5	−0.6	0.3	0.2	−0.5	2.7	0.8	−0.34	−3.0	3.7	6.7
6	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.8	−0.5	−0.8	−1.0	−1.8	0.17	−1.8	3.7	5.5
7	−1.4	−0.9	−1.2	−0.4	0.3	1.4	1.1	1.0	1.4	1.1	2.2	1.5	0.51	−1.9	3.5	5.4
8	1.0	2.1	1.4	3.0	1.9	1.8	1.6	2.0	2.4	1.7	1.2	2.8	1.91	1.0	3.5	2.5
9	5.3	3.5	4.2	5.3	1.9	2.5	5.1	4.1	5.2	3.2	0.7	−0.8	3.35	−0.8	6.0	6.8
10	−1.5	0.5	2.0	0.3	4.5	3.9	3.2	0.1	0.4	0.0	0.1	1.0	1.21	−1.5	5.3	6.8
11	−0.1	0.0	0.2	0.3	1.8	1.2	0.0	−0.4	−1.0	−1.0	−0.5	−0.3	0.02	−1.3	3.5	4.8
12	−0.6	−0.8	−2.2	−0.7	0.0	3.4	3.6	1.2	2.8	1.5	2.4	0.2	0.90	−2.9	4.4	7.3
13	2.3	2.8	3.0	3.3	2.9	5.0	4.8	4.9	3.2	4.9	3.1	1.9	3.51	1.9	6.5	4.6
14	1.7	3.1	1.6	1.8	1.6	3.1	3.6	1.4	1.5	4.1	2.9	−0.8	2.13	−0.8	4.8	5.6
15	0.3	0.7	2.0	2.5	3.7	4.3	5.1	5.8	4.8	5.0	3.6	2.4	3.35	0.3	6.9	6.6
16	3.5	3.6	3.4	3.0	2.7	2.9	3.5	4.1	4.2	4.0	3.4	3.6	3.49	2.0	5.0	3.0
17	2.3	3.3	3.0	3.3	5.2	5.5	6.4	3.6	4.3	3.8	2.2	2.7	3.80	2.2	6.8	4.6
18	0.8	0.5	0.6	0.7	0.9	1.2	1.2	1.3	1.0	0.8	0.8	0.6	0.87	0.5	1.8	1.3
19	0.5	−0.4	−0.6	−0.4	0.3	0.6	0.9	0.6	1.0	1.3	1.0	1.2	0.50	−0.7	2.0	2.7
20	0.5	0.0	0.0	0.2	0.4	0.5	1.0	1.0	0.2	0.1	0.8	1.0	0.48	−0.1	1.9	2.0
21	0.5	0.8	0.5	1.6	1.5	1.6	0.8	0.2	0.0	0.0	−0.1	−0.2	0.60	−0.2	2.0	2.2
22	0.2	−0.1	−0.7	−0.1	0.8	1.9	0.5	0.1	0.3	−0.2	0.5	0.1	0.28	−0.2	2.5	2.7
23	0.1	−0.5	−0.5	−0.2	0.1	0.4	0.7	0.4	0.0	−0.4	−0.5	−0.4	−0.07	−1.1	1.3	2.4
24	−0.5	−0.6	−0.2	0.0	0.8	1.1	1.3	0.0	−0.6	−1.3	−2.1	−2.4	−0.38	−2.4	2.0	4.4
25	−2.4	−3.2	−3.2	−1.8	−0.2	−1.1	1.7	−0.9	−0.3	1.9	0.6	−0.2	−0.76	−4.1	2.7	6.8
26	2.2	2.5	0.6	1.8	2.4	3.0	3.2	3.5	3.2	4.1	4.2	4.4	2.93	0.5	5.4	4.9
27	−2.8	3.2	1.5	2.0	2.2	2.8	3.3	4.4	4.5	4.9	4.6	4.8	3.42	1.4	5.2	3.8
28	4.8	3.8	5.7	5.8	4.6	3.4	3.4	5.1	4.5	3.1	3.2	2.5	4.16	2.5	6.8	4.3
29	3.2	4.6	4.0	7.8	5.4	4.8	6.6	7.5	7.5	8.2	7.4	4.2	5.93	2.5	**9.5**	7.0
30	6.4	6.4	6.2	7.0	7.0	7.6	8.5	6.2	7.3	7.5	1.8	1.9	6.15	1.5	**9.5**	8.0
Mean	0.81	1.09	1.05	1.57	1.54	2.37	2.65	2.16	2.17	2.07	1.55	0.86	1.67	−0.6	4.5	5.1

1899. July.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	3.2	4.0	4.8	4.3	0.5	0.6	0.4	0.6	0.4	−0.1	0.2	0.6	1.63	−0.6	4.8	5.4
2	0.0	−0.4	0.4	0.8	2.4	2.1	2.5	2.7	4.5	5.5	2.5	2.2	2.10	−0.4	5.9	6.3
3	1.0	2.8	3.0	4.5	4.5	7.9	7.9	7.4	7.0	4.2	4.3	3.7	4.85	0.8	**9.2**	8.4
4	4.8	2.4	2.0	2.2	4.5	3.6	4.7	6.4	5.8	4.9	6.4	5.4	4.43	1.6	6.5	4.9
5	2.4	3.2	0.6	4.8	3.6	3.4	3.7	3.9	6.2	5.1	4.8	4.9	3.88	2.3	7.1	4.8
6	5.3	2.0	5.5	5.8	4.1	3.2	4.7	4.3	4.7	3.1	3.5	1.2	3.95	1.2	5.9	4.7
7	1.3	2.2	3.2	2.9	4.1	3.4	4.7	3.7	3.0	0.4	0.4	−0.2	2.43	−0.2	5.5	5.7
8	−0.1	0.0	0.5	2.0	2.5	4.2	5.3	3.8	3.6	0.8	1.7	0.2	2.04	−0.1	5.3	5.4
9	−1.3	−1.2	0.1	1.0	3.0	4.8	6.8	5.3	5.2	5.4	3.3	3.2	2.97	**−1.3**	7.9	9.2
10	5.1	4.8	3.5	4.1	2.1	3.3	3.8	4.2	3.8	3.6	3.8	4.5	3.88	2.1	6.7	4.6
11	3.1	2.9	2.4	2.8	2.6	3.9	5.6	5.6	4.2	2.4	3.4	4.0	3.58	1.9	7.0	5.1
12	1.2	2.0	1.8	3.0	2.6	6.1	6.5	4.6	4.8	3.3	2.2	2.6	3.39	1.2	7.5	6.3
13	1.0	1.5	0.0	1.6	2.2	3.4	4.5	5.8	2.2	3.5	4.4	3.8	2.83	0.0	6.4	6.4
14	2.2	2.5	2.6	2.7	2.6	2.2	2.1	2.8	2.9	3.4	3.1	2.6	2.64	2.1	4.3	2.2
15	2.8	2.8	1.3	1.2	0.8	0.9	0.6	0.8	1.2	1.0	1.6	2.3	1.44	0.3	4.1	3.8
16	4.2	5.0	0.8	4.6	3.6	3.8	4.6	4.9	4.9	5.6	4.4	3.0	4.12	0.8	6.2	5.4
17	3.0	2.8	2.0	1.1	2.2	2.2	2.2	2.2	1.8	2.0	3.4	3.2	2.34	1.1	4.0	2.9
18	2.4	1.9	2.4	2.8	3.0	3.2	4.3	4.2	3.9	2.6	2.0	1.4	2.84	1.4	5.0	3.6
19	1.4	2.1	2.0	3.1	3.2	3.0	2.6	2.5	2.2	1.8	1.3	1.1	2.18	1.1	3.7	2.6
20	1.2	0.8	1.4	1.8	3.1	3.9	3.0	3.6	0.2	1.5	0.6	1.7	1.90	0.2	4.9	4.7
21	2.2	2.6	2.0	1.9	2.0	1.9	2.0	2.0	1.9	0.9	1.2	1.0	1.80	0.9	3.6	2.7
22	1.4	1.2	1.0	1.3	2.1	1.0	2.3	2.5	2.7	3.0	2.2	1.2	1.83	0.9	3.0	2.1
23	0.9	2.0	0.9	1.2	1.6	4.4	3.2	7.4	5.0	3.6	2.0	2.3	2.79	0.9	6.4	5.5
24	2.2	1.9	2.8	2.4										1.9	2.8	0.9
Mean*	2.12	2.17	1.92	2.67	2.73	3.32	3.82	3.92	3.57	2.93	2.73	2.43	2.86	0.8	5.6	4.7

* 1st to 23rd.

1899. October.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
23							−13.3	− 8.6	− 7.0	− 7.6	− 7.3	− 7.5				
24	− 7.0	− 7.6	− 6.2	− 5.7	− 6.1	− 6.3	− 7.3	− 8.9	−11.2	−12.5	−13.5	−12.8	− 8.76	−13.5	− **5.3**	8.2
25	−12.4	−12.5	−12.0	−12.2	−12.1	−12.4	−11.2	−13.4	−14.6	−15.8	−18.0	−19.0	−13.80	−19.0	−10.9	8.1
26	−19.5	−20.3	−22.4	−22.4	−20.5	−23.0	−25.4	−24.4	−21.0	−21.2	−22.1	−23.4	−22.13	−25.4	−15.0	10.4
27	−23.8	−21.5	−21.8	−22.4	−21.0	−20.6	−22.2	−22.9	−21.5	−23.6	−25.8	−17.5	−22.05	−25.2	−17.2	8.0
28	−18.0	−17.4	−21.2	−22.1	−23.0	−25.4	−25.6	−23.3	−27.0	−27.6	−25.5	−25.2	−23.44	−27.6	−17.2	10.4
29	−26.4	−25.2	−25.2	−27.2	−27.6	−27.1	−28.0	−28.6	−27.2	−26.6	−26.1	−26.8	−26.83	−28.6	−23.0	5.6
30	−27.0	−26.3	−26.5	−25.8	−27.2	−26.1	−27.2	−25.8	−27.5	−26.0	−26.0	−27.0	−26.53	−27.5	−24.6	2.9
31	−27.6	−27.2	−27.0	−28.0	−28.4	−29.0	−27.4	−25.7	−21.2	−19.2	−17.4	−16.6	−24.56	**−29.0**	−14.5	14.5
Mean*	−20.21	−19.75	−20.16	−20.72	−20.74	−21.24	−21.79	−21.63	−21.40	−21.56	−21.80	−21.04	−21.00	−24.5	−16.0	8.5

* 24th to 31st.

1899. November.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−15.5	−15.4	−15.4	*−15.0*	−14.6	−14.2	−12.4	−11.6	−13.5	−14.4	−14.5	−15.8	−14.36	−15.8	**−11.4**	4.4
2	−16.3	−15.4	−15.2	−14.6	−14.7	−14.9	−14.4	−14.4	−13.9	−13.7	−14.3	−14.8	−14.72	−16.3	−13.5	2.8
3	−16.0	−15.0	−13.9	−15.6	−17.4	−17.0	−17.3	−19.0	−20.3	−22.5	−24.0	−25.2	−18.60	−25.2	−13.3	11.9
4	−25.4	*−24.5*	−23.5	−23.9	−26.6	−26.6	−27.2	−26.2	−23.9	−22.5	−21.8	−20.4	−24.38	−27.3	−18.8	8.5
5	−21.0	−20.4	−20.8	−19.2	−19.5	−19.5	*−18.8*	−18.2	−18.8	−18.7	−20.4	−21.0	−19.69	−22.6	−17.5	5.1
6	−20.4	−19.6	−19.4	−20.0	−21.7	−20.6	−19.7	−19.6	−21.8	−22.6	−21.8	−20.6	−20.65	−22.6	−18.3	4.3
7	−19.6	−17.5	−17.8	−18.4	−18.2	−18.2	−19.3	−19.5	−20.7	−21.3	−23.0	−24.3	−19.82	−24.3	−16.5	7.8
8	−25.0	−25.2	−26.7	−24.8	−24.4	−23.2	−22.3	−22.8	−21.1	−19.8	−18.9	−18.2	−22.70	−28.5	−17.8	10.7
9	−20.2	−21.5	−24.3	−22.2	−24.1	−23.5	−26.3	−25.9	−23.3	−24.2	−25.7	−26.3	−23.96	−26.3	−17.8	8.5
10	−26.0	−27.4	−28.0	−27.4	−28.0	−29.4	−28.6	−29.4	−29.4	−30.0	−31.7	−31.8	−28.93	−31.8	−24.0	7.8
11	−32.2	−32.8	−31.8	−33.3	−32.7	−32.1	−30.4	−29.3	−28.5	−28.9	−28.4	*−26.8*	−30.60	−34.5	−28.0	6.5
12	−25.3	−24.0	−24.0	−23.6	−23.6	−22.4	−21.8	−21.9	−22.4	−22.2	−22.0	−21.2	−22.87	−25.3	−18.5	6.8
13	−20.2	−18.9	−19.7	−20.2	−20.7	−20.1	−20.5	−21.8	−20.7	−23.5	−24.4	−24.2	−21.24	−24.4	−18.5	5.9
14	−25.0	−20.8	−20.2	−20.7	−20.3	−19.1	−19.2	−19.4	−20.4	−20.3	−18.6	−17.8	−20.15	−25.1	−17.1	8.0
15	−20.0	−20.2	−20.1	−20.3	−20.8	−20.8	−21.4	−23.4	−24.5	−24.2	−25.4	−25.8	−22.23	−25.8	−17.1	8.7
16	−26.9	−28.6	−27.6	−27.9	−30.9	−31.2	−30.2	−30.3	−28.6	−28.6	−28.4	−28.6	−28.99	−31.4	−22.0	9.4
17	−29.5	−30.3	−30.2	−31.3	−30.5	−28.6	−32.5	−32.3	−33.6	−32.8	−32.5	−31.4	−31.29	−34.0	−27.7	6.3
18	−31.0	−33.6	−33.0	−27.3	−29.2	−31.0	−31.9	−28.9	−29.0	−30.4	−29.2	−29.6	−30.34	−33.6	−27.3	6.3
19	−28.1	−32.0	−27.7	−28.4	−27.7	−27.6	−28.3	−29.2	−28.9	−31.5	−30.6	−31.8	−29.32	−32.0	−26.0	6.0
20	−33.8	−33.8	−33.8	−34.4	−33.7	−34.3	−33.9	−34.6	−34.4	−34.8	−35.1	−35.2	−34.32	−35.2	−32.0	3.2
21	−35.6	−36.9	−29.4	−32.6	−30.7	−30.2	−31.0	−29.4	−26.5	−26.2	−25.4	−26.2	−30.01	−36.9	−25.4	11.5
22	−27.9	−24.5	−23.2	−21.1	−21.4	−21.8	−21.0	−21.7	−22.9	−23.9	−24.1	−25.0	−23.21	−27.9	−20.5	7.4
23	−26.2	−27.5	−27.8	−31.7	−30.8	−33.0	−31.7	−30.8	−32.5	−32.9	−32.0	−33.0	−30.83	−33.7	−22.2	11.5
24	−33.4	−31.2	−32.0	−31.4	−31.0	−32.2	−31.6	−30.7	−30.7	−32.0	−31.4	−33.6	−31.77	−33.6	−28.0	5.6
25	−33.3	−32.2	−32.4	−35.2	−32.5	−34.6	−34.7	−34.6	−34.7	−35.2	−34.4	−31.0	−33.73	−36.3	−27.1	9.2
26	−30.9	−29.7	−30.0	−33.2	−31.3	−30.2	−29.4	−31.6	−32.2	−32.4	−33.3	−34.6	−31.57	−34.3	−27.7	6.6
27	−33.8	−35.3	−34.8	−34.5	−35.3	−34.5	−35.5	−35.7	−35.0	−32.2	−30.5	−30.4	−33.96	−35.4	−30.8	4.6
28	−30.7	−29.4	−29.9	−30.3	−31.3	−32.6	−32.3	−29.8	−27.3	−26.3	−29.6	−30.2	−29.14	−32.7	−25.7	7.0
29	−32.4	−32.2	−30.6	−34.0	−33.8	−35.1	−34.9	−35.1	−35.2	−33.5	−34.9	−34.6	−33.86	−35.3	−30.6	4.7
30	−33.9	−34.2	−34.6	−33.5	−35.3	−34.4	−35.7	−37.1	−35.1	−37.1	−37.6	−37.5	−35.50	**−37.3**	−31.4	5.9
Mean	−26.52	−26.33	−25.98	−26.20	−26.42	−26.43	−26.47	−26.47	−26.33	−26.62	−26.80	−26.90	−26.45	−29.5	−22.4	7.1

1899. December.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−37.1	−36.7	−35.5	−34.6	−34.6	−35.3	−35.3	−35.8	−34.8	−35.3	−35.7	−33.8	−35.38	−37.3	−32.0	5.3
2	−34.3	−34.5	−34.3	−37.3	−35.3	−35.3	−34.8	−33.8	−32.3	−32.1	−31.8	−32.3	−34.01	−37.6	−27.9	9.7
3	−32.4	−30.7	−30.3	−33.1	−33.9	−30.6	−31.0	−29.5	−35.0	−34.5	−34.5	−34.0	−32.46	−35.5	−28.8	6.7
4	−35.3	−33.3	−33.3	−30.0	−28.8	−28.9	−32.1	−33.0	−32.1	−32.3	−31.9	−32.3	−31.94	−35.2	−28.0	7.2
5	−31.3	−32.6	−32.3	−31.9	−30.9	−29.5	−27.3	−27.1	−27.5	−28.3	−29.4	−29.4	−29.79	−32.3	−26.3	6.0
6	−28.7	−28.2	−27.5	−27.5	−27.3	−28.1	−28.8	−29.3	−29.3	−29.1	−26.6	−26.3	−28.06	−32.6	−25.4	7.2
7	−24.8	−26.8	−26.8	−27.6	−28.6	−27.8	−28.8	−28.8	−30.8	−32.3	−31.3	−32.2	−28.88	−32.6	−24.5	8.1
8	−33.1	−35.3	−34.4	−33.6	−33.5	−31.9	−32.4	−32.8	−31.5	−30.3	−29.5	−28.3	−32.22	−35.0	−25.9	9.1
9	−28.8	−29.8	−30.3	−30.7	−31.0	−30.8	−32.5	−30.6	−29.7	−28.3	−28.8	−29.5	−30.07	−32.2	−27.7	4.5
10	−30.1	−32.3	−33.9	−34.0	−32.3	−30.6	−30.1	−30.3	−30.3	−32.0	−35.3	−35.3	−32.21	−35.0	−27.2	7.8
11	−37.0	−36.6	−36.3	−37.2	−30.3	−32.2	−30.8	−32.1	−33.0	−32.7	−33.1	−33.5	−33.73	−37.8	−30.0	7.8
12	−35.3	−34.9	−34.5	−33.9	−28.3	−29.3	−28.1	−30.0	−30.3	−31.4	−28.9	−30.1	−31.25	−35.7	−26.9	8.8
13	−27.8	−26.3	−25.0	−24.5	−25.4	−26.3	−26.4	−27.1	−27.0	−28.7	−27.6	−26.6	−26.56	−28.4	−23.8	4.6
14	−28.5	−29.9	−30.3	−32.2	−31.3	−33.3	−34.5	−35.3	−36.3	−35.5	−36.3	−35.8	−33.27	−36.8	−25.7	11.1
15	−36.3	−36.6	−35.8	−33.6	−33.6	−33.1	−32.3	−32.5	−32.1	−31.4	−31.2	−30.4	−33.24	−36.8	−27.3	9.5
16	−29.5	−29.1	−28.6	−28.3	−28.3	−25.4	−25.3	−25.4	−25.6	−26.6	−28.1	−28.6	−27.40	−31.4	−24.3	7.1
17	−27.7	−28.6	−29.5	−29.3	−29.5	−29.3	−30.0	−32.8	−32.7	−33.9	−34.0	−36.3	−31.13	−36.0	−25.0	11.0
18	−33.3	−32.3	−31.8	−31.3	−37.3	−38.3	−37.3	−40.0	−39.3	−40.0	−35.6	−36.9	−36.12	−40.9	−30.5	10.4
19	−38.4	−35.1	−38.3	−38.9	−36.7	−39.1	−39.9	−38.2	−38.5	−38.6	−39.0	−40.0	−38.39	−39.7	−32.2	7.5
20	−40.8	−40.8	−41.2	−41.4	−40.3	−36.1	−39.3	−38.2	−35.6	−36.0	−33.7	−35.0	−38.20	−42.1	−31.0	11.1
21	−32.8	−33.0	−31.4	−31.8	−30.9	−36.1	−35.3	−37.3	−38.8	−35.9	−38.0	−41.0	−35.19	−40.7	−29.7	11.0
22	−37.6	−38.3	−36.5	−37.2	−40.6	−40.3	−40.3	−39.0	−40.4	−39.3	−33.3	−37.6	−38.37	−40.3	−33.0	7.3
23	−33.8	−35.8	−33.8	−23.3	−22.2	−21.1	−20.6	−19.3	−18.9	−18.8	−18.6	−18.3	−23.71	−38.6	−16.7	21.9
24	−20.1	−18.3	−18.3	−17.3	−17.5	−17.3	−17.7	−17.0	−17.2	−17.2	−17.0	−16.3	−17.60	−19.8	−13.9	5.9
25	−16.0	−15.5	−14.8	−14.3	−16.4	−20.3	−19.0	−18.3	−26.3	−26.3	−27.8	−27.3	−20.19	−30.8	−13.9	16.9
26	−27.8	−27.8	−27.8	−28.6	−29.2	−31.9	−33.1	−31.1	−30.9	−28.9	−20.6	−17.5	−27.93	−33.2	−17.2	16.0
27	−18.5	−16.8	−18.3	−17.1	−17.3	−16.3	−18.3	−15.9	−13.2	−19.1	−10.1	− 9.5	−15.87	−27.5	− 9.2	18.3
28	− 3.4	− 3.1	− 2.5	− 2.2	− 4.4	− 6.1	− 6.3	− 7.0	− 8.3	− 7.9	−11.2	−12.9	− 6.28	−12.6	− 1.5	11.1
29	−13.8	−13.6	−15.1	−15.0	−14.7	−12.2	− 9.3	−10.1	− 8.9	−13.2	−11.6	−15.3	−12.67	−15.0	− 8.4	6.6
30	−10.3	−13.7	−15.0	−17.5	−15.3	−17.2	−13.4	−19.0	−20.1	−19.2	−20.3	−20.8	−16.82	−20.5	−10.0	10.5
31	−21.3	−19.0	−19.1	−19.3	−22.8	−22.5	−20.1	−17.3	−19.3	−19.0	−20.5	−21.8	−20.17	−22.5	−15.0	7.5
Mean	−28.58	−28.56	−28.47	−28.21	−28.02	−28.15	−28.08	−28.19	−28.58	−28.84	−28.11	−28.55	−28.36	−32.7	−23.2	9.5

1900. January.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−22.3	−22.3	−25.3	−25.0	−26.2	−25.1	−26.5	−25.1	−20.7	−19.8	−20.5	−21.1	−23.33	−26.9	−18.0	8.9
2	−21.4	−21.6	−21.1	−18.6	−18.3	−17.5	−16.7	−16.5	−16.2	−16.5	−17.4	−16.3	−18.18	−22.0	−15.5	6.5
3	−15.5	−15.8	−18.1	−18.5	−18.1	−16.9	−16.8	−18.2	−17.8	−18.8	−18.8	−18.4	−17.64	−21.2	−15.2	6.0
4	−20.3	−21.4	−21.3	−20.6	−20.8	−21.0	−21.2	−21.2	−22.5	−27.0	−26.9	−27.5	−22.64	−27.2	−17.6	9.6
5	−29.6	−29.8	−29.3	−32.6	−33.3	−32.4	−33.9	−35.1	−35.2	−33.5	−32.5	−29.6	−32.23	−34.9	−25.3	9.6
6	−27.9	−26.3	−25.4	−24.6	−24.0	−24.2	−23.6	−23.3	−25.3	−26.5	−24.5	−25.5	−25.09	−33.0	−21.8	11.2
7	−27.3	−29.3	−30.3	−32.5	−32.6	−33.5	−34.5	−34.5	−36.6	−36.1	−37.2	−37.3	−33.48	−37.0	−27.0	10.0
8	−37.8	−38.3	−37.8	−34.3	−38.3	−36.4	−36.2	−35.3	−33.4	−31.0	−28.6	−27.0	−34.53	−38.0	−25.7	12.3
9	−28.5	−27.2	−27.1	−27.1	−25.8	−26.4	−27.1	−26.6	−26.3	−26.6	−26.9	−27.3	−26.91	−31.9	−25.5	6.4
10	−29.5	−30.3	−33.1	−33.7	−32.6	−35.5	−36.3	−36.5	−37.1	−34.8	−36.7	−35.0	−34.26	−36.8	−26.1	10.7
11	−34.5	−32.8	−31.7	−30.2	−29.6	−30.3	−30.4	−31.4	−30.7	−31.3	−32.3	−36.0	−31.77	−35.7	−27.7	8.0
12	−36.3	−37.8	−39.3	−32.8	−35.8	−36.4	−37.1	−37.3	−39.8	−38.4	−40.1	−39.1	−37.52	−39.8	−29.4	10.4
13	−36.4	−36.9	−35.5	−34.9	−32.3	−32.6	−32.0	−30.9	−35.4	−38.5	−40.3	−39.1	−35.40	−40.0	−29.6	10.4
14	−39.2	−38.1	−37.0	−36.2	−35.8	−36.1	−37.0	−36.7	−37.5	−38.6	−39.3	−41.9	−37.78	−41.6	−34.4	7.2
15	−41.5	−42.8	−36.3	−36.9	−37.5	−35.6	−33.3	−35.3	−37.4	−35.4	−37.2	−42.1	−37.61	−42.5	−31.9	10.6
16	−42.3	−41.8	−42.3	−46.4	−45.3	−47.1	−46.8	−48.0	−47.4	−47.5	−46.8	−48.3	−45.83	−48.0	−41.5	6.5
17	−48.2	−47.7	−47.2	−48.4	−49.0	−48.5	−48.4	−49.0	−48.5	−49.0	−47.3	−47.1	−48.18	−49.1	−46.8	2.3
18	−46.5	−45.3	−44.3	−42.8	−41.6	−41.2	−41.5	−42.5	−41.1	−42.6	−42.5	−45.1	−43.08	−48.0	−40.8	7.2
19	−46.3	−45.8	−45.5	−44.6	−46.3	−46.7	−46.5	−47.0	−47.0	−46.3	−46.6	−46.3	−46.24	−47.2	−44.3	2.9
20	−46.5	−46.3	−44.5	−42.1	−40.6	−40.3	−40.9	−40.5	−41.1	−40.6	−41.5	−42.5	−42.29	−46.2	−40.0	6.2
21	−42.5	−42.5	−42.3	−44.3	−43.1	−44.3	−43.3	−43.3	−42.3	−40.3	−40.3	−42.3	−42.57	−44.3	−40.0	4.3
22	−42.3	−42.3	−42.5	−42.8	−43.2	−41.7	−42.2	−42.9	−42.1	−42.3	−39.3	−41.7	−42.11	−43.0	−39.0	4.0
23	−41.9	−39.5	−38.0	−39.9	−40.0	−40.3	−38.6	−39.5	−37.5	−40.7	−40.1	−42.3	−39.86	−42.0	−37.2	4.8
24	−39.8	−38.8	−39.8	−41.7	−41.3	−40.7	−40.3	−43.4	−41.5	−40.6	−42.1	−41.6	−40.97	−43.1	−38.5	4.6
25	−42.6	−42.8	−41.4	−42.0	−42.2	−42.3	−41.2	−43.3	−43.2	−43.0	−42.5	−42.3	−42.40	−43.4	−40.9	2.5
26	−43.1	−42.2	−43.3	−41.9	−41.6	−43.0	−40.5	−41.1	−38.5	−37.2	−38.2	−37.3	−40.66	−42.8	−36.9	5.9
27	−32.8	−28.8	−29.8	−34.2	−35.3	−34.9	−33.6	−30.9	−30.0	−30.3	−29.6	−31.5	−31.81	−35.0	−28.5	6.5
28	−31.4	−32.1	−31.6	−32.0	−32.8	−33.4	−33.0	−33.2	−33.8	−34.1	−34.5	−34.0	−32.99	−34.2	−28.7	5.5
29	−31.4	−32.1	−32.8	−33.7	−32.3	−31.8	−31.3	−30.5	−30.6	−31.4	−32.1	−32.3	−31.86	−33.7	−29.4	4.3
30	−32.7	−32.3	−32.2	−32.5	−31.3	−30.8	−31.3	−31.4	−31.3	−31.5	−32.2	−32.1	−31.80	−32.4	−30.0	2.4
31	−35.3	−34.8	−32.9	−32.0	−34.4	−35.3	−34.0	−36.3	−37.6	−37.2	−40.2	−35.5	−35.46	−39.9	−30.5	9.4
Mean	−35.28	−35.03	−34.81	−34.83	−34.88	−34.91	−34.71	−35.05	−35.01	−35.08	−35.32	−35.66	−35.05	−38.1	−31.1	7.0

1900. February.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−37.6	−38.3	−39.3	−36.3	−36.0	−34.0	−32.5	−31.1	−30.1	−27.1	−25.2	−25.3	−32.73	−39.0	−24.9	14.1
2	−23.1	−21.6	−20.8	−11.5	−15.4	−14.5	−12.2	−11.9	−15.3	−14.3	−15.0	−13.3	−15.74	−26.2	−10.0	16.2
3	−11.5	−10.7	− 8.5	− 6.6	− 6.6	− 8.6	− 8.2	− 7.0	− 5.2	− 3.8	− 3.5	− 3.6	− 6.98	−15.0	− 2.2	12.8
4	− 6.5	− 7.3	− 6.3	− 6.3	− 6.9	− 6.4	− 6.3	− 5.1	− 5.8	− 7.3	− 6.0	− 7.5	− 6.48	− 7.2	− 3.8	3.4
5	− 7.9	− 6.3	− 7.6	−11.1	− 8.6	− 4.8	− 6.0	− 8.5	−12.0	−11.1	−11.2	−11.5	− 8.88	−12.0	− 3.7	8.3
6	−15.1	−15.3	−15.5	−16.0	−16.9	−19.3	−20.6	−22.3	−23.4	−24.3	−22.9	−23.0	−19.55	−24.7	−10.2	14.5
7	−23.0	−20.3	−21.6	−20.5	−20.3	−19.4	−14.3	−13.3	−11.4	− 4.3	− 4.5	− 4.3	−14.77	−22.7	− 3.5	19.2
8	− 3.3	− 3.8	− 2.8	− 5.2	− 4.1	− 2.3	− 2.3	− 1.2	− 5.3	− 6.3	− 7.5	− 6.8	− 4.24	− 7.3	− 0.3	7.0
9	− 5.3	− 6.3	− 5.3	− 4.6	− 3.2	− 3.1	− 1.1	0.3	0.2	0.5	− 0.5	− 0.5	− 2.41	− 7.3	1.8	9.1
10	− 1.8	− 0.1	− 0.9	− 3.9	− 5.4	− 5.7	− 6.6	− 6.7	− 8.3	− 8.5	− 8.6	−11.4	− 5.66	−11.1	1.5	12.1
11	−11.0	−10.8	−10.3	−11.1	−10.6	−12.7	−14.8	−17.4	−18.1	−19.8	−20.1	−19.1	−14.65	−20.5	− 7.4	13.1
12	−17.8	−19.7	−17.6	−17.7	−16.6	−17.7	−18.7	−19.9	−20.6	−21.7	−21.3	−23.8	−19.43	−23.5	−15.0	8.5
13	−20.3	−22.1	−21.4	−19.7	−20.2	−20.9	−18.5	−20.4	−20.4	−23.0	−20.8	−17.4	−20.43	−22.7	−16.5	6.2
14	−17.7	−18.1	−17.8	−17.7	−17.5	−17.3	−17.4	−18.0	−19.3	−20.9	−23.2	−18.4	−18.61	−22.9	−16.5	6.4
15	−17.9	−17.9	−18.7	−19.5	−20.7	−20.9	−21.9	−21.2	−22.8	−27.1	−29.6	−30.8	−22.42	−30.5	−16.7	13.8
16	−31.9	−32.3	−33.3	−33.8	−34.2	−34.6	−35.1	−36.2	−35.5	−35.2	−34.8	−36.8	−34.48	−36.5	−30.5	6.0
17	−35.3	−35.3	−34.3	−33.3	−35.3	−34.5	−34.3	−36.3	−35.3	−36.3	−36.2	−34.7	−35.09	−36.0	−32.4	3.6
18	−35.9	−35.5	−36.2	−34.7	−35.0	−33.3	−31.3	−30.0	−30.6	−30.8	−30.9	−29.3	−32.79	−36.0	−29.0	7.0
19	−28.3	−26.7	−26.3	−25.8	−25.4	−24.6	−23.9	−16.1	−20.3	−18.8	−19.1	−18.4	−22.81	−30.4	−15.2	15.2
20	−18.7	−19.3	−19.6	−19.7	−21.2	−21.6	−24.8	−27.2	−27.4	−27.9	−29.3	−32.3	−24.08	−32.0	−18.0	14.0
21	−32.5	−32.3	−30.9	−29.3	−28.3	−28.3	−28.3	−28.3	−28.3	−28.3	−26.3	−27.3	−29.03	−32.2	−26.0	6.2
22	−26.3	−25.6	−25.3	−21.3	−22.8	−22.4	−24.1	−24.5	−24.3	−24.3	−24.9	−26.1	−24.33	−28.5	−21.0	7.5
23	−26.5	−28.3	−30.8	−31.3	−31.8	−32.5	−33.4	−34.3	−35.5	−35.7	−37.6	−37.8	−32.96	−37.5	−23.0	14.5
24	−38.3	−38.3	−36.8	−37.3	−35.8	−35.7	−34.3	−34.6	−34.5	−34.3	−34.6	−34.9	−35.78	−38.3	−32.3	6.0
25	−35.3	−34.6	−36.8	−37.8	−35.3	−38.5	−36.5	−39.3	−40.3	−40.3	−41.4	−40.6	−38.06	−41.1	−32.3	8.8
26	−39.8	−42.1	−41.4	−41.6	−43.3	−42.0	−42.3	−42.6	−41.6	−43.2	−41.6	−42.3	−41.98	−43.5	−39.5	4.0
27	−39.5	−38.3	−37.4	−33.3	−33.3	−32.3	−31.3	−32.5	−33.1	−32.3	−31.9	−31.2	−33.87	−43.1	−30.9	12.2
28	−30.9	−30.4	−30.3	−29.3	−28.6	−28.0	−27.3	−27.2	−26.3	−26.6	−26.5	−26.8	−28.18	−31.1	−26.0	5.1
Mean	−22.82	−22.77	−22.64	−22.01	−22.12	−22.00	−21.73	−21.88	−22.53	−22.61	−22.68	−22.69	−22.38	−26.2	−16.7	9.5

1900. March.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−26.8	−28.3	−27.5	−27.3	−27.7	−27.8	−27.6	−27.3	−26.3	−28.2	−30.3	−31.7	−28.07	−31.4	−25.4	6.0
2	−32.3	−35.3	−32.3	−33.7	−33.4	−32.3	−34.7	−35.3	−36.3	−37.3	−38.3	−38.3	−34.96	−38.0	−31.1	6.9
3	−38.3	−41.3	−41.8	−41.7	−41.3	−41.6	−40.4	−35.6	−38.3	−38.3	−38.3	−39.3	−39.68	−41.8	−34.3	7.5
4	−40.4	−35.8	−39.3	−35.3	−39.8	−39.5	−40.9	−40.3	−41.3	−42.6	−43.3	−41.9	−40.03	−43.4	−35.3	8.1
5	−45.1	−43.5	−44.3	−41.3	−44.3	−41.3	−42.2	−40.0	−39.5	−37.5	−37.6	−38.3	−41.24	**−44.8**	−37.2	7.6
6	−38.3	−37.8	−37.3	−37.2	−35.8	−35.3	−33.5	−32.1	−31.2	−28.2	−19.2	−10.6	−31.38	−38.7	−10.3	28.4
7	−12.6	−14.4	−16.3	−19.3	−20.4	−14.0	−12.3	−14.6	−16.4	−16.1	−14.6	−*16.3*	−15.61	−20.1	−12.3	7.8
8	−18.0	−17.1	−17.3	−19.4	−20.9	−21.3	−23.6	−24.9	−25.7	−26.8	−27.0	−24.3	−22.19	−26.7	−12.8	13.9
9	−24.1	−22.8	−22.3	−20.6	−19.3	−18.8	−19.0	−19.2	−20.5	−20.3	−24.8	−27.5	−21.33	−27.2	−17.4	9.8
10	−30.5	−32.1	−34.1	−35.3	−35.3	−33.3	−35.4	−35.6	−36.3	−36.4	−37.3	−35.2	−34.73	−37.0	−30.2	6.8
11	−37.9	−37.8	−39.5	−38.2	−38.5	−36.3	−37.3	−38.4	−37.9	−38.4	−38.5	−39.3	−38.17	−39.2	−32.9	6.3
12	−39.1	−39.3	−40.1	−39.5	−38.6	−36.2	−33.5	−36.3	−38.3	−38.4	−38.1	−37.3	−37.89	−40.0	−33.2	6.8
13	−36.3	−35.5	−37.5	−37.3	−37.6	−34.3	−37.0	−36.3	−38.6	−38.4	−38.3	−37.6	−37.06	−38.3	−32.5	5.8
14	−38.3	−38.0	−38.6	−38.6	−37.2	−35.3	−38.2	−31.8	−36.1	−31.2	−30.3	−27.3	−35.08	−39.2	−25.4	13.8
15	−28.8	−28.6	−29.3	−27.8	−26.1	−25.3	−25.2	−24.7	−25.3	−25.1	−25.1	−24.7	−26.33	−30.5	−23.8	6.7
16	−24.3	−23.5	−23.3	−22.8	−22.3	−21.2	−20.5	−20.5	−20.3	−20.3	−20.1	−19.8	−21.58	−25.0	−17.2	7.8
17	−19.3	−18.6	−17.3	−17.5	−17.2	−16.6	−17.2	−17.5	−16.6	−15.2	−13.4	−11.8	−16.52	−20.0	**−10.1**	9.9
18	−11.8	−12.3	−13.3	−12.8	−12.4	−12.3	−12.3	−13.3	−13.5	−14.8	−15.5	−19.5	−13.65	−19.2	**−10.1**	9.1
19	−24.1	−23.7	−22.3	−21.6	−21.3	−20.2	−19.3	−19.8	−20.3	−22.3	−25.2	−24.8	−22.08	−24.9	−18.4	6.5
20	−25.3	−23.8	−24.8	−26.3	−25.3	−21.6	−21.4	−21.5	−21.5	−20.3	−20.9	−20.8	−22.79	−26.0	−20.0	6.0
21	−*20.5*	−20.3	−21.8	−19.5	−18.8	−18.0	−18.3	−21.1	−21.3	−21.4	−23.8	−24.8	−20.80	−24.5	−15.7	8.8
22	−26.3	−26.3	−27.5	−27.9	−26.8	−24.8	−25.5	−25.1	−26.6	−27.9	−29.3	−29.3	−26.94	−29.0	−22.7	6.3
23	−30.3	−30.8	−32.5	−31.1	−27.8	−26.1	−24.6	−25.3	−25.3	−25.3	−28.3	−26.8	−27.85	−32.2	−22.7	9.5
24	−28.8	−23.6	−23.0	−20.9	−20.9	−20.7	−19.0	−18.5	−21.5	−21.3	−21.8	−21.0	−21.75	−28.5	−17.0	11.5
25	−20.7	−19.9	−20.4	−22.3	−22.1	−21.3	−20.8	−19.6	−20.5	−20.2	−19.0	−19.3	−20.51	−22.4	−18.2	4.2
26	−19.3	−16.8	−17.5	−19.2	−19.5	−19.4	−18.5	−20.3	−22.6	−23.6	−26.9	−28.3	−20.99	−28.0	−16.5	11.5
27	−30.3	−30.8	−30.0	−28.7	−26.5	−24.7	−24.0	−24.5	−26.8	−29.3	−29.3	−30.6	−27.96	−30.5	−20.7	9.8
28	−30.3	−30.3	−31.3	−31.3	−28.3	−26.7	−26.5	−27.5	−28.3	−30.2	−30.3	−31.1	−29.34	−32.0	−23.0	9.0
29	−32.0	−32.3	−32.3	−32.5	−29.4	−29.1	−27.6	−27.6	−28.8	−29.3	−22.3	−25.3	−29.04	−32.6	−20.4	12.2
30	−27.8	−24.2	−23.3	−24.3	−22.3	−24.1	−26.5	−28.5	−25.0	−27.0	−27.5	−28.8	−25.79	−28.5	−21.5	7.0
31	−29.3	−29.7	−29.7	−29.8	−28.5	−29.3	−29.5	−29.4	−30.5	−31.7	−32.5	−33.1	−30.25	−32.8	−28.0	4.8
Mean	−28.62	−28.21	−28.64	−28.42	−27.92	−26.73	−26.88	−26.85	−27.66	−27.85	−27.97	−27.89	−27.80	−31.4	−22.5	8.9

1900. April.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−33.8	−33.3	−35.2	−35.3	−32.6	−31.4	−32.4	−31.5	−32.4	−35.3	−36.5	−37.3	−33.92	−37.0	−27.9	9.1
2	−38.3	−38.5	−38.3	−38.3	−35.3	−33.3	−31.8	−32.3	−34.5	−36.3	−36.3	−37.5	−35.89	**−39.0**	−29.0	10.0
3	−38.7	−38.5	−38.4	−38.3	−34.9	−32.7	−32.9	−30.6	−30.0	−34.1	−35.1	−36.4	−35.05	−38.5	−27.5	11.0
4	−36.4	−36.5	−36.5	−35.3	−35.0	−26.3	−25.5	−25.5	−27.2	−28.1	−26.7	−26.7	−30.48	−36.2	−23.3	12.9
5	−25.8	−27.4	−28.5	−26.4	−26.0	−22.3	−23.3	−23.5	−23.9	−24.9	−27.3	−29.4	−25.73	−29.1	−20.6	8.5
6	−30.9	−31.3	−31.5	−31.5	−28.3	−27.9	−28.5	−27.7	−27.5	−32.1	−35.1	−35.1	−30.62	−34.8	−23.5	11.3
7	−35.3	*−36.0*	−36.6	−34.8	−30.4	−28.1	−26.7	−26.6	−25.6	−28.5	−26.8	−28.3	−30.31	−36.3	−23.6	12.7
8	−27.8	−27.1	−26.5	−24.3	−22.4	−20.3	−19.3	−18.3	−20.7	−22.5	−21.3	−19.3	−22.48	−27.5	−16.4	11.1
9	−18.4	−18.3	−17.9	−17.5	−15.5	−14.5	−14.6	−13.9	−14.3	−11.1	−10.5	−12.6	−14.93	−19.6	−10.0	9.6
10	−14.3	−15.5	−17.5	−18.3	−19.5	−19.1	−19.6	−17.5	−17.3	−17.5	−17.1	−18.1	−17.61	−20.2	−16.5	3.7
11	−17.3	−17.5	−19.6	−24.3	−23.3	−23.8	−22.5	−21.3	−21.9	−22.5	−21.9	−24.5	−21.70	−24.2	−16.1	8.1
12	−25.8	−24.9	−22.4	−22.7	−21.9	−21.3	−20.2	−19.4	−18.5	−18.7	−19.3	−19.1	−21.18	−26.7	−17.0	9.7
13	−18.6	−17.9	−18.3	−17.3	−17.0	−16.3	−15.5	−14.8	−15.4	−17.3	−16.8	−17.8	−16.92	−19.8	−14.1	5.7
14	−16.3	−17.1	−15.7	−15.3	−15.0	−19.3	−18.9	−19.9	−20.3	−21.9	−22.1	−24.1	−18.83	−23.8	−13.3	10.5
15	−24.8	−22.3	−21.9	−21.0	−18.8	−19.8	−19.4	−17.3	−19.7	−21.0	−19.3	−25.1	−20.87	−24.8	−15.1	9.7
16	−26.5	−25.5	−25.3	−23.7	−23.5	−23.0	−19.6	−22.3	−21.4	−25.3	−26.9	−29.6	−24.38	−29.3	−18.0	11.3
17	−28.9	−31.1	−28.8	−26.3	−25.3	−18.9	−18.4	−16.8	−15.9	−16.1	−17.1	−16.9	−21.71	−30.9	−15.2	15.7
18	−17.5	−17.0	−16.7	−13.8	−13.5	−13.9	−13.8	−13.8	−15.6	−16.9	−17.3	−17.3	−15.59	−17.2	−12.5	4.7
19	−19.3	−19.1	*−18.2*	−17.3	−17.1	−16.8	−15.9	−16.5	−16.8	−17.6	−19.1	−18.6	−17.69	−21.5	−15.1	6.4
20	−18.3	−17.5	−17.5	−16.6	−16.2	−13.5	−13.5	−15.1	−15.3	−15.6	−15.9	−16.3	−15.94	−18.7	−11.0	7.7
21	−16.9	−17.3	−17.3	−16.8	−17.3	−17.1	−15.2	−17.3	−15.8	−19.3	−25.1	−27.0	−18.53	−26.7	−12.0	14.7
22	−27.8	−29.3	−29.7	−25.4	−20.8	−17.3	−17.9	−16.6	−17.5	−18.7	−22.5	−24.5	−22.33	−29.4	−13.7	15.7
23	−25.8	−23.3	−23.3	−21.1	−16.1	−15.5	−14.5	−13.3	−14.4	−14.1	−13.6	−12.4	−17.28	−25.5	−12.1	13.4
24	−12.8	−11.8	−12.1	−12.3	−10.6	− 9.5	− 9.8	−10.6	−10.9	−10.7	−11.2	−11.7	−11.17	−14.0	− 8.1	5.9
25	−11.1	−11.3	−12.5	−11.8	− 9.8	− 9.8	−10.0	−10.3	−10.5	−13.9	−14.1	−15.9	−11.75	−15.6	− 7.6	8.0
26	−15.8	−18.1	−18.1	−15.4	−14.8	−12.0	−13.1	−13.8	−15.4	−17.3	−21.3	−23.9	−16.58	−23.6	−10.0	13.6
27	−26.8	−26.3	−27.9	−24.9	−22.7	−21.1	−20.9	−19.0	−19.2	−24.4	−28.1	−29.2	−24.21	−29.2	−16.5	12.7
28	−31.0	−33.2	−32.4	−29.4	−27.4	−24.2	−23.8	−21.5	−21.8	−23.8	−27.0	−28.4	−26.99	−33.2	−18.6	14.6
29	−27.1	−21.0	−18.6	−15.8	−15.2	−13.8	−12.7	−13.2	−12.2	−13.6	−14.0	−16.8	−16.17	−27.1	−10.0	17.1
30	−17.8	−18.0	−14.8	−13.8	−12.6	−10.5	−10.1	− 8.5	− 9.2	−10.4	−11.4	−12.2	−12.44	−19.1	− **6.3**	12.8
Mean	−24.20	−24.06	−23.93	−22.83	−21.29	−19.78	−19.34	−18.96	−19.37	−20.98	−21.89	−23.07	−21.64	−26.6	−16.0	10.6

1900. May.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	-14.5	-15.2	-15.2	-15.9	-14.8	-15.3	-14.0	-14.6	-13.9	-14.9	-14.8	-16.8	-14.99	-16.8	-12.9	3.9
2	-17.6	-17.4	-16.9	-15.3	-13.0	-12.4	-15.6	-15.3	-16.0	*-15.9*	-15.8	-16.2	-15.62	-17.6	-10.8	6.8
3	-16.5	-15.8	-15.0	-13.2	-10.8	-9.8	-10.2	-10.0	-10.2	-10.0	-9.4	-10.2	-11.76	-16.5	-7.0	9.5
4	-9.4	-7.8	-7.4	-7.2	-6.8	-6.1	-5.1	-5.2	-5.4	-5.5	-4.6	-4.6	-6.26	-10.5	-4.6	5.9
5	-4.4	*-4.0*	-3.7	-3.5	-2.8	-2.6	-2.2	-2.3	-2.7	-2.8	-3.3	-6.1	-3.37	-6.1	-1.0	5.1
6	-8.5	-11.2	-7.6	-5.2	-4.0	-2.6	-3.8	-3.9	-4.2	-4.7	-6.2	-7.3	-5.77	-11.2	-2.3	8.9
7	-6.2	-4.7	-5.3	-4.7	-4.5	-3.5	-3.2	-3.8	-3.4	-3.8	-3.8	-4.0	-4.24	-7.5	-2.5	5.0
8	-3.5	-5.1	-5.5	-5.4	-5.0	-0.8	-3.8	-3.7	-4.6	-5.0	-5.7	-6.3	-4.53	-6.3	0.3	6.6
9	-6.4	*-6.3*	*-6.1*	-6.0	-5.3	-3.3	-4.8	-1.1	-3.0	-6.6	-9.2	-10.0	-5.68	-10.0	-0.2	9.8
10	-10.8	-9.7	-8.8	-7.9	-7.2	-6.6	-5.0	-7.4	-5.4	-9.2	-12.2	-13.0	-8.60	-13.0	-2.7	10.3
11	-15.0	-17.8	-16.6	-12.5	-12.6	-12.0	-11.2	-10.5	-11.3	-12.2	-15.2	-18.0	-13.74	-18.0	-8.0	10.0
12	-18.6	-17.8	-18.4	-13.8	-14.1	-11.8	-10.4	-9.9	-9.6	-9.7	-12.2	-15.0	-13.44	-20.5	-6.8	13.7
13	-17.4	-17.8	-15.5	*-12.6*	-9.7	-9.7	-8.3	-6.5	-6.2	-9.4	-11.7	-10.0	-11.23	-18.4	-4.6	13.8
14	-9.0	-8.4	-7.3	-7.0	-5.4	-6.2	-4.6	-3.5	-4.2	-4.2	-4.5	-4.7	-5.75	-11.3	-2.9	8.4
15	-4.4	-4.6	-6.2	-4.6	-2.6	-1.5	-2.4	-2.5	-2.7	-3.0	-3.5	-3.6	-3.47	-6.2	-0.2	6.0
16	-3.8	-3.5	-3.3	-3.2	-1.6	-1.6	-1.6	-1.9	-3.8	-5.2	-5.6	-6.2	-3.44	-6.2	-0.6	5.6
17	-7.2	-7.4	-7.6	-7.4	-7.4	-6.9	-6.6	-6.2	-6.1	-6.2	-6.0	-7.0	-6.83	-9.5	-4.5	5.0
18	-6.8	-5.9	-6.7	-5.4	-5.0	-5.4	-4.6	-1.0	-1.1	-1.4	-1.4	-2.1	-3.90	-7.6	-0.2	7.4
19	-3.5	-3.5	-3.4	-2.2	-3.4	-3.7	-2.5	-2.9	-5.0	-7.7	-10.0	-11.4	-4.93	-11.4	-0.7	10.7
20	-12.1	-14.1	-14.3	-13.2	-11.8	-9.3	-11.1	-11.8	-11.9	-11.0	-10.8	-11.8	-11.93	-14.8	-9.3	5.5
21	-11.5	-11.3	-11.2	-10.8	-10.8	-9.6	-6.3	-9.0	-10.6	-10.8	-12.0	-14.1	-10.67	-14.1	-4.5	9.6
22	-15.8	-14.6	-12.8	-9.9	-11.2	-9.3	-8.6	-6.2	-8.2	-8.0	-8.0	-7.8	-10.03	-15.8	-5.2	10.6
23	-6.0	*-6.0*	-6.0	-7.3	-7.6	-7.9	-7.6	-8.8	-11.2	-11.2	-15.9	-15.5	-9.25	-16.9	-5.0	11.9
24	-15.4	*-14.1*	-12.8	-12.2	-12.2	-11.4	-11.8	-8.6	-9.8	-13.0	-17.0	-17.5	-12.99	-17.5	-6.5	11.0
25	-19.6	-20.6	-18.0	-14.1	-13.4	-11.2	-8.9	-9.2	-9.2	-9.8	-13.5	-18.2	-13.81	-21.3	-4.8	16.5
26	-20.2	*-20.2*	-16.4	-16.2	-13.4	-12.7	-11.1	-9.0	-7.2	-5.8	-11.8	-13.4	-13.12	**-22.0**	-4.6	17.4
27	-12.6	-12.0	-8.7	-7.8	-6.1	-3.6	-3.4	-4.1	-4.9	-7.5	-9.1	-10.8	-7.55	-12.6	-1.0	11.6
28	-11.4	-11.4	-9.4	-7.3	-5.9	-3.9	-6.5	-5.6	-5.0	-7.8	-10.7	-11.7	-8.05	-11.7	-1.0	10.7
29	-13.4	-12.0	-8.8	-6.0	-6.0	0.1	-2.8	-2.3	-2.9	-3.2	-4.1	-5.0	-5.53	-14.3	0.1	14.4
30	-7.0	-9.2	-7.2	-7.1	-3.1	0.0	-1.4	-1.5	-2.6	-1.4	-2.5	-2.7	-3.81	-9.8	**1.6**	11.4
31	-4.2	*-3.5*	-2.8	-1.4	-1.0	-2.4	-1.2	-0.4	0.0	0.6	-0.3	0.6	-1.33	-5.7	0.9	6.6
Mean	-10.73	-10.74	-9.84	-8.59	-7.69	-6.55	-6.47	-6.09	-6.53	-7.30	-8.74	-9.69	-8.25	-12.9	-3.6	9.3

1900. June.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	1.0	1.0	1.0	0.9	0.6	1.0	1.0	0.9	0.2	0.2	0.2	−0.2	0.65	−0.2	3.1	3.3
2	0.0	0.0	0.0	0.4	0.9	1.6	3.1	1.4	0.9	0.2	0.6	0.3	0.78	−1.1	4.3	5.4
3	0.5	0.2	−0.2	1.2	2.4	1.9	1.6	1.7	1.3	1.7	0.9	1.1	1.19	−0.5	4.9	5.4
4	0.4	0.2	0.2	−0.9	−1.2	0.0	−0.8	−0.8	−0.7	−0.7	−1.2	−1.1	−0.55	−1.2	2.8	4.0
5	−0.9	−0.9	−0.6	−0.3	0.5	0.3	1.2	1.3	0.7	1.3	1.1	0.6	0.36	−2.0	3.6	5.6
6	0.7	0.4	0.5	0.9	1.0	1.7	2.0	2.7	1.8	0.4	0.8	0.4	1.03	0.1	4.0	3.9
7	0.0	0.5	0.9	1.8	1.8	1.9	2.4	2.4	0.8	0.7	1.2	0.6	1.25	−0.4	4.9	5.3
8	0.3	−0.5	0.4	2.6	2.5	1.1	3.0	4.1	1.6	3.1	0.7	−2.9	1.33	−2.9	6.5	9.4
9	−5.2	−4.8	−3.3	−1.9	−0.7	0.3	0.2	2.5	1.5	0.8	−0.8	−1.9	−1.11	**−5.2**	6.0	11.2
10	−4.1	−3.6	−1.5	−1.5	−0.4	1.3	0.7	2.6	1.6	0.6	−0.7	−0.9	−0.49	−4.3	4.8	9.1
11	−0.9	−2.0	−0.5	1.0	0.7	2.2	4.2	2.6	4.4	3.0	1.6	1.3	1.48	−2.0	6.7	8.7
12	1.1	1.2	1.4	3.9	3.8	4.7	3.5	2.8	2.6	2.0	1.6	1.6	2.52	0.9	5.1	4.2
13	1.1	0.6	0.8	1.6	1.8	1.1	0.5	1.2	1.4	0.8	0.8	1.1	1.07	0.5	3.3	2.8
14	0.5	0.6	0.7	0.8	1.6	1.7	1.9	1.1	1.0	0.8	0.8	0.4	0.99	0.4	3.0	2.6
15	0.5	0.8	1.1	2.4	0.6	1.7	1.8	1.2	1.4	1.0	0.2	−0.3	1.03	−0.3	2.7	3.0
16	−1.0	−1.2	−1.9	−1.5	−1.0	−1.0	0.3	0.6	1.2	0.2	0.0	−2.0	−0.61	−2.0	2.2	4.2
17	−4.2	−3.5	−2.0	−0.4	0.4	0.6	2.1	2.0	2.6	1.6	1.8	1.8	0.23	−4.5	3.6	8.1
18	1.9	2.0	1.0	2.1	2.1	2.0	2.4	2.7	3.4	2.8	2.3	−3.4	1.78	−3.4	4.4	7.8
19	−1.5	−0.8	1.6	0.8	3.0	4.2	6.1	3.4	2.2	2.3	1.5	0.3	1.93	−1.5	8.2	9.7
20	0.7	0.6	0.0	1.2	1.1	1.8	1.7	1.3	0.4	−0.3	−0.2	−1.1	0.60	−1.1	2.7	3.8
21	−1.4	−1.1	−0.6	0.5	0.6	1.6	2.2	3.2	2.6	3.0	1.3	1.8	1.14	−1.6	4.2	5.8
22	2.7	2.3	2.0	1.5	2.0	3.1	2.1	1.9	1.2	1.0	1.1	0.8	1.81	0.8	3.9	3.1
23	0.8	3.8	2.6	1.7	3.3	5.9	6.0	6.4	6.9	6.2	5.7	5.3	4.55	0.6	7.3	6.7
24	3.8	4.9	4.9	5.4	5.8	5.9	5.2	5.3	4.1	2.1	2.3	0.9	4.22	0.9	7.5	6.6
25	2.5	5.0	6.0	6.7	6.1	7.8	8.2	8.7	9.5	8.8	7.2	6.8	6.94	1.2	9.7	8.5
26	5.0	3.4	5.6	6.9	10.2	9.6	5.2	5.4	6.2	7.5	6.4	6.4	6.48	2.9	11.7	8.8
27	6.6	7.8	8.7	11.0	3.2	3.6	4.6	3.5	1.8	1.8	2.8	1.8	4.77	0.8	**12.2**	11.4
28	1.8	0.3	1.2	0.4	1.4	1.6	2.3	3.6	2.0	0.6	0.9	0.1	1.35	0.1	3.6	3.5
29	−3.3	−0.4	1.6	1.6	1.6	2.0	2.4	2.9	2.9	3.0	2.6	0.4	1.44	−3.3	6.0	9.3
30	0.2	0.4	2.4	2.3	2.9	8.0	7.6	7.2	7.6	7.1	4.4	6.4	4.71	0.2	9.0	8.8
Mean	0.32	0.57	1.13	1.77	1.95	2.64	2.82	2.83	2.50	2.12	1.60	0.88	1.76	−0.9	5.4	6.3

1900. July.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	4.5	4.2	4.2	4.4	4.9	5.6	7.9	6.1	5.6	3.3	1.9	1.6	4.52	1.6	9.1	7.5
2	0.4	0.6	1.8	3.9	2.8	3.2	3.8	5.7	6.3	5.0	1.3	1.9	3.06	0.3	8.1	7.8
3	2.1	2.2	2.2	2.9	3.0	4.1	8.5	7.9	7.1	6.5	5.7	1.3	4.46	1.3	9.2	7.9
4	0.8	0.5	1.4	1.3	2.4	4.6	7.5	7.0	6.6	2.1	2.3	4.7	3.43	0.1	8.8	8.7
5	2.6	2.6	2.6	2.3	3.9	3.8	1.9	2.3	3.4	2.1	4.3	4.3	3.01	1.9	6.9	5.0
6	4.4	4.6	3.3	3.9	2.8	3.7	4.8	2.5	1.4	1.2	0.8	1.1	2.88	0.6	8.2	7.6
7	0.8	1.4	1.8	0.8	2.6	2.1	1.7	2.1	2.5	1.9	1.6	1.5	1.73	0.6	4.6	4.0
8	0.9	0.9	0.8	0.8	1.5	1.9	3.3	2.3	2.5	5.7	3.6	2.3	2.21	0.8	6.8	6.0
9	1.7	1.5	1.2	2.7	2.1	3.8	4.0	5.7	5.0	4.3	8.2	7.5	3.98	1.2	8.8	7.6
10	7.3	5.0	2.8	1.8	1.8	1.8	0.8	0.3	0.8	0.6	0.4	0.3	1.98	0.2	8.8	8.6
11	1.2	1.0	0.8	1.3	1.0	1.5	1.2	1.8	1.9	2.0	1.4	1.0	1.34	0.3	2.0	1.7
12	1.0	0.7	0.6	1.2	1.5	1.7	2.0	2.6	1.0	1.4	0.1	0.0	1.15	0.0	3.4	3.4
13	0.0	0.1	—0.4	—0.7	1.3	2.6	7.1	7.4	6.9	6.1	4.5	3.2	3.18	—0.7	8.2	8.9
14	1.8	2.0	4.0	3.0	3.3	2.2	2.7	2.4	1.3	1.4	0.8	1.3	2.18	0.2	7.4	7.2
15	0.7	0.6	0.6	1.2	2.9	4.2	4.0	2.9	0.9	3.8	2.6	4.3	2.39	0.2	6.2	6.0
16	6.8	4.1	6.2	3.7	2.5	3.9	3.9	5.0	3.8	3.4	3.0	3.2	4.13	2.5	7.2	4.7
17	3.2	2.6	2.6	2.2	3.5	3.9	3.8	5.2	3.6	3.2	7.8	2.6	3.68	2.0	7.8	5.8
18	3.9	3.2	3.6	2.2	3.5	5.3	6.5	3.5	2.9	3.1	1.9	0.9	3.38	0.9	7.0	6.1
19	—0.5	—0.4	7.0	7.6	7.6	2.5	2.5	2.3	1.4	1.4	2.0	1.1	2.88	**—1.0**	9.2	10.2
20	1.1	2.3	2.8	4.4	6.7	4.5	3.0	2.4	2.5	3.2	2.0	2.4	3.11	0.3	7.0	6.7
21	1.1	0.2	1.0	3.4	1.8	3.5	3.8	6.6	5.4	5.9	3.1	2.2	3.17	0.2	**10.8**	10.6
22	1.2	4.2	3.8	3.3	3.8	3.4	6.5	7.3	6.4	6.2	4.8	3.4	4.53	1.2	7.3	6.1
23	2.2	2.8	5.2	2.8	2.2	2.9	3.4	3.8	3.6	3.0	1.7	3.0	3.05	0.7	7.8	7.1
24	2.3	2.0	3.6	3.4	4.5	3.5	2.7	4.7	6.3	7.6	5.4	2.7	4.06	0.7	9.2	8.5
25	1.9	1.4	3.4	3.6	4.2	5.5	9.1	9.1	8.2	8.4	4.5	2.7	5.17	0.6	10.0	9.4
26	1.7	—0.2	0.2	0.5	2.0	2.1	3.9	3.9	2.2	1.8	1.7	1.6	1.78	—0.5	5.5	6.0
27	1.0	1.0	1.2	2.0	2.0	2.2	2.3	3.4	3.0	2.5	1.4	1.8	1.99	1.0	4.3	3.3
28	0.5	0.0	1.5	1.0	2.8	4.8	4.9	4.1	2.3	2.5	2.9	1.5	2.40	0.0	5.6	5.6
29	0.9	2.3	2.4	4.0	4.6	5.0	5.5	3.2	4.8	5.4	4.7	3.2	3.83	0.9	6.7	5.8
30	4.6	2.0	1.8	2.2	2.3	3.3	2.6	3.5	3.8	2.0	1.9	1.2	2.60	1.2	6.0	4.8
31	1.0	1.2	1.8	1.6	1.8	2.4	2.6	3.0	2.4	2.1	2.4	1.8	2.01	1.0	3.6	2.6
Mean	2.04	1.83	2.45	2.54	3.02	3.40	4.14	4.19	3.72	3.52	2.93	2.31	3.01	0.7	7.1	6.4

1900. August.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	2.1	2.9	2.5	2.5	3.8	3.1	2.2	4.2	3.7	3.0	3.2	2.4	2.97	1.5	5.2	3.7
2	1.6	1.0	1.4	2.2	1.7	1.6	2.1	4.5	3.5	4.2	1.7	2.0	2.29	0.7	6.1	5.4
3	1.5	0.1	0.0	0.1	1.4	3.3	3.3	3.9	4.1	3.9	2.9	2.2	2.23	**−0.5**	4.9	5.4
4	0.0	0.0	0.2	2.3	3.4	3.6	3.9	3.7	4.2	3.2	1.4	1.0	2.24	0.0	5.3	5.3
5	4.4	4.3	5.1	6.2	6.7	7.5	7.9	7.4	7.0	6.7	5.9	6.4	6.29	0.8	8.4	7.6
6	6.4	6.7	3.3	3.6	3.5	4.1	4.3	5.0	4.6	3.7	2.4	0.9	4.04	0.9	7.4	6.5
7	0.0	0.1	0.2	0.5	1.2	3.2	8.8	5.6	6.5	6.1	10.1	9.5	4.32	0.0	**11.3**	11.3
8	9.3	3.8	4.6	2.6	3.5	5.0	4.5	5.3	4.4	3.4	1.3	0.9	4.05	0.9	**11.3**	10.4
9	0.4	0.6	0.1	1.1	2.3									0.0	5.3	5.3
Mean*	3.16	2.36	2.16	2.50	3.15	3.93	4.63	4.95	4.75	4.28	3.61	3.16	3.55	0.5	7.3	6.8

* 1st to 8th.

1900. September.*

Gaasefjord. 18th to 30th $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
18	− 6.3	− 5.7	− 5.8	− 6.3	− 6.4	− 7.4	− 5.2	− 6.6	− 7.4	− 7.9	− 7.6	− 7.0	− 6.63	− 7.9	− **5.2**	2.7
19	− 7.3	− 6.7	− 6.8	− 6.7	− 6.3	− 7.9	− 9.0	−10.8	−12.1	−11.7	−10.6	−10.7	− 8.88	−12.3	− 6.2	6.1
20	−10.3	− 9.6	− 9.2	− 9.0	− *9.2*	− 9.5	−10.4	−*10.7*	−11.0	−11.3	−10.9	−10.7	−10.15	−11.3	− 9.0	2.3
21	−10.1	− 9.6	−10.1	−10.2	− 9.8	− 9.5	− 9.8	− 9.6	− 9.2	− 9.9	−10.5	−10.5	− 9.90	−10.5	− 8.7	1.8
22	−10.8	−11.3	−11.5	−11.4	−10.7	−11.2	−10.5	−10.8	−12.8	−13.0	−14.1	−13.8	−11.83	−14.1	−10.0	4.1
23	−11.4	−10.9	−10.3	− 9.8	−12.0	−11.1	−10.7	−12.2	− 9.2	− 9.2	− 9.0	− 9.0	−10.40	−12.3	− 8.3	4.0
24	− 9.1	− 9.0	− 9.7	−10.2	−10.3	− 9.4	−10.3	−11.2	−11.5	−11.3	− 9.8	− 9.9	−10.14	−13.3	− 8.3	5.0
25	−10.5	−10.6	−11.6	−11.3	−11.5	−11.4	−11.4	−11.9	−12.5	−13.2	−13.5	−13.9	−11.94	−13.9	− 9.3	4.6
26	−15.1	−14.2	−13.9	−13.3	−12.7	−12.5	−12.6	−13.2	−13.8	−12.9	−12.9	−12.5	−13.30	−15.1	−12.0	3.1
27	−13.3	−13.6	−14.1	−15.1	−15.0	−13.8	−12.7	−12.0	−11.6	−11.5	−12.3	−13.6	−13.22	−15.1	−11.0	4.1
28	−13.9	−15.2	−14.7	−13.0	−14.5	−12.9	−11.4	−12.4	−13.4	−14.0	−14.1	−13.7	−13.60	−**17.0**	−10.6	6.4
29	−11.8	−10.9	− 8.6	−10.2	−10.2	−12.6	−10.9	−10.2	−11.1	−10.3	−10.6	−*13.0*	−10.70	−13.6	− 7.9	5.7
30	−11.3	− 9.0	− 9.7	− 8.8	− 9.9	−10.1	−11.7	−13.5	−12.3	−12.0	−12.8	−12.7	−11.15	−13.5	− 8.5	5.0
Mean	−10.86	−10.49	−10.46	−10.41	−10.65	−10.71	−10.51	−11.16	−11.38	−11.40	−11.44	−11.62	−10.92	−13.1	− 8.8	4.3

* 11th to 17th under way.

1900. October.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−11.9	−11.3	−10.6	−10.8	−10.8	−10.8	−10.1	−10.7	−10.9	−10.9	−11.5	−11.4	−10.98	−13.2	− 9.5	3.7
2	−11.7	−11.5	−11.6	−11.3	−11.9	−12.7	−13.2	−13.7	−13.2	−13.0	−13.0	−15.1	−12.66	−15.1	−10.1	5.0
3	−21.1	−21.1	−23.0	−22.1	−16.0	−13.3	−13.1	−13.0	−12.8	−12.9	−12.9	−13.9	−16.27	−23.0	−12.2	10.8
4	−*14.6*	−15.3	−15.7	−15.5	−15.4	−15.5	−17.5	−17.9	−19.5	−18.0	−15.3	−15.5	−16.31	−20.4	−12.2	8.2
5	−15.3	−15.5	−16.0	−16.5	−16.9	−17.0	−17.4	−17.6	−18.5	−17.7	−17.5	−17.2	−16.93	−18.5	−14.8	3.7
6	−17.3	−20.1	−19.3	−20.2	−21.6	−20.4	−19.2	−19.5	−19.8	−19.4	−21.3	−26.7	−20.40	−26.7	−16.6	10.1
7	−25.2	−27.1	−27.3	−27.9	−26.1	−25.3	−23.3	−26.3	−25.4	−26.0	−27.9	−25.6	−26.12	−28.1	−22.3	5.8
8	−20.3	−20.7	−21.3	−21.1	−20.7	−19.5	−20.3	−21.0	−21.1	−23.1	−23.9	−25.7	−21.56	−25.7	−18.2	7.5
9	−25.5	−23.5	−23.4	−24.3	−25.7	−26.3	−25.5	−25.6	−25.1	−24.2	−23.9	−23.8	−24.73	−26.3	−22.0	4.3
10	−24.3	−25.5	−25.4	−24.6	−23.5	−22.8	−23.6	−22.7	−22.7	−23.4	−22.1	−21.1	−23.48	−26.2	−21.0	5.2
11	−21.2	−20.5	−19.9	−19.7	−20.6	−19.9	−20.3	−21.2	−19.8	−18.7	−18.5	−18.4	−19.89	−22.9	−17.8	5.1
12	−16.8	−15.3	−*16.4*	−17.6	−19.5	−18.4	−18.8	−18.7	−20.0	−19.0	−19.1	−20.2	−18.32	−20.2	−15.3	4.9
13	−21.8	−17.4	−18.1	−20.5	−20.0	−21.8	−21.2	−22.1	−21.7	−21.8	−23.6	−22.9	−21.08	−23.6	−16.1	7.5
14	−24.3	−26.6	−26.2	−24.2	−23.0	−22.9	−23.1	−24.1	−23.9	−22.6	−22.6	−23.0	−23.88	−26.6	−22.0	4.6
15	−22.4	−22.3	−21.9	−21.4	−22.2	−21.9	−22.0	−20.7	−20.8	−23.8	−24.8	−25.5	−22.49	−25.5	−20.0	5.5
16	−23.3	−22.9	−22.3	−22.7	−*23.6*	−24.4	−21.3	−*21.1*	−20.9	−22.1	−24.3	−24.2	−22.76	−25.1	−19.6	5.5
17	−24.7	−24.3	−23.9	−22.6	−21.7	−21.0	−20.6	−21.4	−21.9	−21.1	−21.2	−21.0	−22.12	−25.1	−19.4	5.7
18	−20.8	−21.3	−21.4	−21.9	−22.7	−23.2	−24.6	−24.7	−25.8	−26.7	−25.5	−25.7	−23.69	−26.7	−20.1	6.6
19	−25.1	−24.1	−21.9	−20.1	−18.4	−16.9	−14.9	−14.4	−14.7	−12.5	−12.0	−11.4	−17.20	−27.1	−11.3	15.8
20	−10.7	− 9.6	− 7.8	− 8.8	− 6.6	− 5.7	− 3.7	− 6.7	− 6.5	− 7.7	− 7.3	− 7.2	− 7.36	−12.8	− 3.1	9.7
21	− 7.4	− 6.4	− 6.3	− 6.2	− 5.6	− 4.3	− 3.9	− 3.7	− 4.5	− 3.9	− 4.6	− 8.3	− 5.43	− 8.3	− **3.0**	5.3
22	−10.4	−10.8	−13.4	−12.3	−12.9	−11.5	− 8.6	− 7.1	− 8.6	− 9.8	− 9.4	−11.4	−10.52	−13.7	− 6.6	7.1
23	−11.1	−11.2	−12.3	−12.8	− 7.1	− 8.3	− 9.9	− 9.7	− 9.9	−10.5	− 7.4	− 6.8	− 9.75	−12.8	− 5.7	7.1
24	− 5.3	− 5.0	− 5.0	− 4.9	− 4.5	− 4.4	− 6.4	− 7.4	−11.1	−12.9	−13.3	−14.9	− 7.93	−14.9	− 3.7	11.2
25	−15.7	−16.6	−18.5	−19.6	−17.0	−15.9	−15.4	−16.1	−15.1	−13.9	−14.1	−12.6	−15.88	−19.6	− 9.8	9.8
26	−11.3	−10.3	−10.7	−14.1	−17.3	−18.3	−20.4	−21.1	−22.2	−22.1	−22.0	−23.2	−17.75	−23.2	− 9.8	13.4
27	−23.4	−23.3	−23.5	−24.4	−23.9	−23.7	−23.1	−21.2	−20.3	−19.7	−19.3	−19.4	−22.10	−24.4	−17.3	7.1
28	−18.2	−18.1	−18.1	−18.7	−18.7	−18.8	−18.5	−17.5	−*17.0*	−16.5	−16.7	−16.9	−17.81	−19.4	−16.1	3.3
29	−16.7	−16.7	−18.5	−15.4	−13.9	−13.1	−12.4	−11.0	− 9.5	− 7.7	− 8.3	− 8.0	−12.60	−18.5	− 7.2	11.3
30	− 8.3	− 7.9	− 8.2	− 8.7	− 9.0	−15.0	−17.1	−19.3	−20.6	−21.5	−23.2	−23.3	−15.18	−23.3	− 6.7	16.6
31	−23.7	−24.9	−26.3	−25.3	−27.5	−28.3	−28.1	−28.5	−24.7	−24.4	−25.2	−24.9	−25.98	−**28.5**	−20.3	8.2
Mean	−17.74	−17.65	−17.88	−17.94	−17.56	−17.46	−17.34	−17.60	−17.69	−17.66	−17.80	−18.23	−17.71	−21.5	−13.9	7.6

1900. November.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−26.7	−27.6	−28.5	−28.9	−25.8	−26.1	−25.7	−26.1	−28.1	−29.3	−28.9	−28.4	−27.51	−29.3	−24.5	4.8
2	−29.3	−29.3	−28.5	−28.9	−29.5	−29.9	−30.4	−30.0	−28.3	−28.8	−27.3	−26.9	−28.93	−30.7	−26.8	3.9
3	−25.6	−25.3	−24.9	−23.3	−22.4	−21.6	−20.4	−19.7	−18.7	−17.9	−16.9	−16.3	−21.08	−28.4	−16.2	12.2
4	−16.3	−15.7	−15.3	−14.4	−14.0	−13.4	−13.3	−12.6	−12.5	−12.3	−12.0	−11.9	−13.64	−17.8	−10.8	7.0
5	−12.0	−12.5	−12.7	−12.9	−14.1	−14.5	−14.3	−15.0	−15.8	−16.7	−18.0	−19.7	−14.85	−19.7	−10.8	8.9
6	−21.7	−23.8	−25.1	−25.9	−26.7	−27.9	−28.6	−28.3	−28.6	−28.9	−29.9	−29.9	−27.11	−29.9	−21.6	8.3
7	−30.8	−31.2	−31.6	−31.8	−32.2	−32.0	−31.9	−32.3	−32.8	−33.1	−33.1	−33.4	−32.18	−33.4	−24.8	8.6
8	−33.5	−33.4	−33.8	−33.8	−33.8	−34.7	−35.0	−35.1	−35.8	−36.0	−35.6	−36.5	−34.75	−36.5	−31.7	4.8
9	−35.8	−36.0	−35.4	−35.4	−35.6	−35.4	−35.4	−35.6	−35.9	−32.9	−32.0	−32.6	−34.83	−36.0	−29.2	6.8
10	−32.7	−31.4	−30.4	−31.7	−35.9	−34.2	−37.2	−33.7	−32.4	−36.2	−36.1	−35.5	−33.95	−**37.2**	−29.2	8.0
11	−34.4	−33.4	−31.6	−30.3	−29.1	−27.5	−26.8	−25.7	−25.9	−26.4	−25.7	−25.6	−28.53	−34.4	−22.6	11.8
12	−26.7	−26.6	−24.4	−23.4	−23.1	−23.4	−24.4	−24.6	−24.6	−24.4	−23.7	−23.6	−24.41	−26.9	−21.8	5.1
13	−22.9	−22.6	−21.9	−21.9	−24.7	−26.5	−26.7	−28.0	−28.4	−22.6	−23.4	−25.0	−24.55	−28.4	−20.9	7.5
14	−26.4	−27.4	−26.8	−27.4	−26.1	−26.3	−30.2	−30.4	−31.1	−26.4	−26.7	−24.4	−27.47	−32.3	−23.6	8.7
15	−25.9	−25.4	−32.7	−27.2	−32.2	−32.2	−32.0	−32.4	−32.3	−32.2	−32.4	−32.6	−30.79	−32.7	−23.6	9.1
16	−32.4	−32.4	−32.4	−32.5	−34.4	−34.4	−32.6	−31.6	−30.7	−30.4	−29.4	−29.7	−31.91	−34.4	−28.7	5.7
17	−29.6	−31.4	−32.6	−32.1	−33.8	−33.6	−32.9	−28.4	−27.4	−33.1	−34.0	−35.4	−32.03	−35.4	−26.0	9.4
18	−29.6	−35.6	−36.2	−35.7	−35.4	−35.3	−34.5	−32.9	−32.6	−33.4	−33.4	−32.4	−33.92	−36.3	−27.9	8.4
19	−31.4	−31.4	−32.4	−35.2	−34.5	−34.4	−32.4	−33.5	−33.2	−34.2	−34.4	−34.4	−33.45	−35.2	−28.2	7.0
20	−34.1	−34.7	−32.9	−32.7	−33.6	−32.4	−32.6	−32.4	−32.0	−30.9	−31.7	−30.7	−32.56	−35.0	−30.2	4.8
21	−25.0	−26.9	−32.4	−31.6	−31.7	−31.5	−30.7	−31.1	−30.2	−29.4	−28.7	−31.1	−30.03	−32.4	−24.0	8.4
22	−31.4	−31.4	−28.8	−26.4	−27.4	−27.2	−26.5	−26.9	−25.9	−23.7	−22.5	−23.4	−26.79	−31.4	−21.6	9.8
23	−24.1	−27.7	−28.4	−29.3	−30.2	−30.1	−24.4	−28.2	−27.5	−26.4	−28.4	−28.4	−27.76	−30.2	−21.6	8.6
24	−29.2	−29.4	−28.4	−26.5	−26.6	−27.1	−26.4	−26.4	−26.1	−25.6	−25.4	−25.4	−26.88	−29.4	−24.2	5.2
25	−25.4	−26.4	−26.8	−27.4	−26.0	−28.0	−27.2	−26.4	−26.5	−29.6	−29.4	−28.6	−27.25	−29.6	−24.2	5.4
26	−28.5	−27.4	−25.8	−24.7	−23.2	−28.4	−26.8	−28.5	−26.5	−29.1	−31.3	−30.4	−27.55	−32.1	−21.9	10.2
27	−31.6	−31.6	−32.4	−31.6	−32.0	−31.4	−30.1	−28.0	−27.2	−25.4	−25.4	−26.0	−29.39	−32.4	−24.0	8.4
28	−26.4	−28.4	−28.0	−28.9	−27.3	−27.4	−23.9	−22.6	−20.6	−20.4	−19.5	−21.6	−24.58	−28.9	−18.7	10.2
29	−22.0	−20.0	−18.7	−12.8	−10.9	− 9.9	−10.1	−11.9	−11.4	−11.9	−10.8	−10.6	−13.42	−22.0	− **9.2**	12.8
30	−10.4	−12.4	−12.4	−11.5	−12.1	−11.9	−16.6	−17.5	−17.7	−18.4	−19.4	−23.0	−15.28	−23.0	− 9.7	13.3
Mean	−27.06	−27.62	−27.74	−27.20	−27.48	−27.62	−27.33	−27.19	−26.89	−26.87	−26.85	−27.11	−27.25	−30.7	−22.6	8.1

1900. December.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−23.0	−24.4	−27.7	−27.7	−26.2	−26.2	−27.4	−28.4	−29.4	−28.4	−27.4	−27.4	−26.97	−29.4	−17.4	12.0
2	−26.7	−25.5	−21.4	−24.4	−12.0	−12.2	−12.5	−12.5	−12.5	−12.4	−12.4	−13.4	−16.49	−31.0	− **9.9**	21.1
3	−13.4	−14.3	−15.8	−18.6	−21.7	−22.6	−23.5	−25.2	−25.9	−27.4	−27.4	−29.3	−22.09	−29.3	−11.5	17.8
4	−29.7	−30.8	−32.6	−31.1	−31.0	−31.4	−31.7	−31.8	−31.6	−33.1	−33.4	−31.9	−31.67	−33.6	−25.7	7.9
5	−32.8	−32.4	−31.4	−32.4	−31.2	−33.1	−31.4	−32.4	−30.5	−28.2	−27.0	−27.4	−30.85	−33.1	−26.0	7.1
6	−27.4	−31.4	−32.4	−33.5	−33.2	−32.4	−30.8	−32.7	−26.4	−30.7	−29.4	−30.2	−30.88	−33.5	−25.2	8.3
7	−30.4	−32.4	−31.6	−32.2	−31.6	−30.8	−31.0	−32.8	−32.8	−29.4	−28.3	−29.3	−31.05	−33.2	−27.0	6.2
8	−32.5	−30.9	−31.3	−34.3	−33.4	−35.2	−35.1	−33.7	−33.4	−32.2	−26.7	−25.6	−32.03	−35.1	−25.2	9.9
9	−26.7	−27.0	−25.8	−30.2	−32.4	−31.4	−33.5	−33.1	−33.4	−32.4	−32.7	−33.6	−31.02	−33.6	−24.0	9.6
10	−33.6	−34.6	−34.7	−34.6	−33.5	−32.6	−32.7	−32.4	−33.2	−33.2	−33.0	−33.4	−33.46	−34.7	−29.8	4.9
11	−32.6	−33.2	−31.8	−31.7	−30.9	−31.9	−32.4	−31.7	−29.4	−27.4	−25.4	−25.4	−30.32	−35.1	−25.0	10.1
12	−25.6	−25.7	−24.8	−22.7	−21.5	−21.6	−22.8	−22.7	−23.5	−26.4	−24.4	−24.9	−23.88	−26.4	−20.8	5.6
13	−25.6	−26.1	−27.3	−28.6	−30.1	−31.5	−31.8	−31.6	−33.4	−31.4	−32.4	−33.4	−30.27	−33.4	−23.4	10.0
14	−33.9	−33.8	−35.4	−31.0	−31.2	−31.5	−30.1	−30.6	−30.9	−28.3	−26.7	−24.4	−30.65	−35.4	−24.0	11.4
15	−22.4	−19.7	−17.6	−17.8	−18.4	−17.4	−17.5	−18.1	−18.2	−18.4	−17.4	−18.1	−18.42	−27.5	−17.0	10.5
16	−18.4	−18.9	−20.9	−22.3	−23.9	−26.4	−29.3	−31.3	−32.5	−31.0	−32.9	−31.9	−26.64	−37.1	−18.0	19.1
17	−34.9	−37.0	−35.4	−37.2	−35.2	−37.0	−37.8	−38.1	−37.4	−37.5	−39.4	−40.6	−37.29	−40.6	−29.3	11.3
18	−42.2	−42.5	−42.2	−42.0	−41.5	−42.4	−43.3	−44.0	−44.4	−44.3	−44.4	−44.4	−43.13	−44.6	−40.0	4.6
19	−44.0	−43.9	−44.2	−44.5	−44.5	−44.9	−44.6	−43.8	−43.5	−43.2	−43.4	−43.4	−43.99	−44.9	−42.8	2.1
20	−43.5	−43.9	−43.4	−43.9	−43.4	−43.9	−42.9	−42.7	−43.4	−43.0	−43.4	−42.4	−43.32	−44.2	−42.0	2.2
21	−42.0	−41.9	−42.0	−43.5	−43.4	−43.7	−44.3	−44.8	−44.4	−44.4	−43.4	−45.0	−43.57	−45.0	−41.5	3.5
22	−44.9	−44.0	−43.4	−42.7	−41.6	−42.3	−42.4	−42.4	−41.5	−43.5	−42.6	−43.7	−42.92	−44.9	−41.1	3.8
23	−43.4	−43.2	−43.0	−43.9	−43.7	−42.4	−43.0	−42.4	−42.1	−44.8	−45.4	−45.8	−43.59	−45.8	−41.7	4.1
24	−43.4	−45.9	−42.3	−44.3	−43.5	−42.9	−42.4	−42.4	−42.2	−42.4	−43.3	−43.2	−43.19	**−46.4**	−41.8	4.6
25	−42.5	−40.9	−40.2	−41.3	−41.6	−41.6	−42.4	−42.4	−43.5	−43.4	−41.4	−41.6	−41.90	−43.5	−39.8	3.7
26	−40.7	−40.2	−39.9	−39.4	−39.1	−39.1	−39.1	−39.1	−38.4	−38.1	−38.3	−38.4	−39.15	−42.6	−37.7	4.9
27	−38.6	−39.9	−40.4	−40.6	−40.5	−39.9	−39.7	−39.2	−40.1	−38.4	−38.9	−38.4	−39.55	−40.6	−38.0	2.6
28	−36.9	−35.4	−37.0	−36.5	−35.3	−36.0	−37.5	−37.1	−39.4	−40.4	−40.2	−40.4	−37.68	−40.4	−33.2	7.2
29	−41.4	−39.4	−38.4	−36.4	−39.1	−38.2	−38.4	−39.2	−33.0	−32.6	−33.1	−34.4	−36.97	−41.4	−31.0	10.4
30	−39.1	−38.3	−37.5	−36.4	−37.6	−38.5	−35.1	−35.6	−35.5	−33.5	−35.5	−38.4	−36.75	−39.3	−32.2	7.1
31	−39.1	−38.2	−37.2	−38.5	−38.9	−38.5	−38.9	−40.4	−39.6	−39.7	−40.4	−40.0	−39.12	−40.4	−32.2	8.2
Mean	−33.91	−34.05	−33.84	−34.33	−33.91	−34.18	−34.36	−34.66	−34.39	−34.18	−33.87	−34.18	−34.19	−37.6	−29.5	8.1

1901. January.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−40.9	−41.1	−41.0	−40.9	−40.7	−40.6	−40.4	−40.5	−41.8	−41.8	−42.2	−43.3	−41.27	−43.3	−38.8	4.5
2	−34.9	−35.4	−35.4	−34.7	−35.0	−41.5	−41.6	−39.0	−41.6	−41.4	−38.7	−39.4	−38.22	−41.6	−31.9	9.7
3	−39.4	−39.9	−39.4	−37.2	−36.7	−36.3	−34.6	−33.4	−31.7	−30.4	−29.9	−28.8	−34.81	−41.2	−28.4	12.8
4	−27.1	−26.4	−25.7	−25.9	−25.3	−24.4	−24.5	−24.7	−29.4	−30.8	−32.0	−33.5	−27.48	−33.5	−23.0	10.5
5	−35.5	−36.6	−37.4	−38.1	−38.9	−37.5	−38.1	−39.4	−39.5	−38.3	−39.4	−38.4	−38.09	−39.5	−29.5	10.0
6	−39.2	−38.7	−38.4	−37.8	−38.4	−38.4	−37.6	−37.6	−38.6	−38.4	−37.4	−37.2	−38.14	−39.2	−34.1	5.1
7	−35.9	−36.4	−35.6	−35.7	−34.7	−33.1	−27.7	−30.4	−31.4	−32.4	−33.1	−34.9	−33.44	−38.4	−26.9	11.5
8	−34.9	−37.4	−37.4	−37.5	−38.5	−37.4	−38.0	−38.9	−40.7	−40.7	−40.4	−41.4	−38.60	−41.4	−30.5	10.9
9	−41.7	−41.8	−42.0	−40.4	−40.2	−40.2	−39.6	−39.4	−40.0	−40.4	−38.4	−39.0	−40.26	−42.8	−38.0	4.8
10	−38.1	−38.3	−35.9	−35.7	−34.6	−37.9	−39.9	−38.7	−39.5	−39.2	−38.4	−37.7	−37.83	−39.9	−33.8	6.1
11	−37.6	−37.9	−39.4	−38.9	−38.4	−38.1	−38.1	−38.4	−38.4	−38.4	−38.1	−38.9	−38.38	−40.0	−37.2	2.8
12	−39.4	−39.5	−39.8	−40.2	−39.9	−39.9	−39.7	−40.0	−39.9	−40.0	−40.2	−39.4	−39.66	−40.2	−33.4	6.8
13	−37.4	−39.9	−38.9	−42.4	−40.7	−41.4	−41.4	−42.5	−42.5	−42.7	−42.5	−42.5	−41.23	−42.7	−37.0	5.7
14	−43.1	−43.7	−44.4	−45.4	−40.6	−46.5	−48.5	−47.4	−47.4	−41.2	−39.4	−40.4	−44.00	−48.5	−39.0	9.5
15	−47.4	−46.5	−43.2	−47.4	−47.9	−47.4	−47.6	−47.9	−47.5	−47.4	−47.4	−47.6	−47.10	−47.9	−42.8	5.1
16	−47.7	−46.9	−46.4	−47.5	−46.2	−48.4	−47.4	−40.9	−44.0	−43.4	−42.4	−41.6	−45.23	−48.0	−40.5	7.5
17	−40.5	−41.4	−43.4	−39.7	−41.4	−42.0	−44.5	−45.7	−45.4	−45.4	−45.2	−44.4	−43.25	−45.9	−39.3	6.6
18	−44.3	−45.4	−44.6	−45.4	−45.4	−45.4	−45.7	−46.5	−46.5	−45.0	−47.4	−47.4	−45.75	−47.4	−43.9	3.5
19	−47.4	−48.4	−48.4	−45.8	−50.0	−49.7	−50.4	−50.7	−50.9	−51.4	−51.4	−51.4	−49.66	**−51.4**	−45.4	6.0
20	−50.4	−50.4	−48.9	−47.9	−47.0	−45.2	−42.8	−40.4	−39.4	−39.4	−39.5	−40.8	−44.34	−51.3	−39.0	12.3
21	−41.4	−41.0	−41.2	−41.2	−42.2	−42.4	−43.4	−44.2	−44.5	−45.2	−45.4	−45.4	−43.13	−45.4	−40.6	4.8
22	−45.4	−46.4	−45.3	−45.5	−44.4	−44.7	−44.2	−47.4	−48.0	−42.2	−39.6	−46.9	−45.00	−48.0	−39.2	8.8
23	−40.9	−45.7	−43.0	−47.3	−47.4	−46.6	−46.4	−45.3	−43.4	−42.9	−41.4	−40.4	−44.23	−47.4	−40.0	7.4
24	−39.4	−38.8	−38.7	−38.4	−38.4	−37.4	−37.2	−37.6	−37.9	−38.2	−37.4	−36.9	−38.03	−42.5	−36.5	6.0
25	−36.3	−35.4	−36.1	−35.9	−35.9	−35.9	−35.9	−34.9	−35.1	−34.9	−34.4	−33.9	−35.38	−37.8	−33.5	4.3
26	−34.9	−36.4	−37.4	−37.5	−38.4	−39.9	−40.2	−39.5	−38.4	−39.5	−39.1	−38.4	−38.30	−40.2	−32.3	7.9
27	−36.9	−35.4	−33.4	−30.8	−27.5	−26.4	−24.6	−25.4	−26.7	−26.4	−30.3	−27.4	−29.27	−38.5	−23.8	14.7
28	−27.0	−28.0	−34.3	−35.0	−33.7	−37.8	−37.4	−38.1	−38.2	−37.4	−36.8	−34.4	−34.84	−38.2	−24.5	13.7
29	−34.6	−32.6	−29.9	−26.4	−29.9	−29.8	−30.5	−30.4	−30.4	−32.8	−25.4	−29.4	−30.18	−39.2	**−21.7**	17.5
30	−25.4	−27.2	−23.6	−29.4	−28.2	−31.6	−26.4	−27.7	−29.4	−27.6	−26.7	−29.8	−27.75	−34.3	**−21.7**	12.6
31	−29.9	−27.4	−25.4	−36.5	−35.7	−35.0	−36.5	−35.6	−36.7	−34.6	−32.2	−31.4	−33.08	−36.7	−23.8	12.9
Mean	−38.52	−38.91	−38.51	−38.98	−38.78	−39.32	−39.06	−38.98	−39.51	−39.03	−38.45	−38.78	−38.90	−42.3	−33.9	8.4

1901. February.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C°.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−32.9	−34.4	−34.9	−34.7	−34.7	−37.4	−37.3	−36.5	−36.4	−37.5	−37.5	−37.5	−35.98	−37.9	−29.5	8.4
2	−38.5	−39.4	−38.9	−38.7	−38.5	−37.4	−37.4	−35.1	−34.8	−33.8	−33.1	−32.9	−36.54	−39.4	−32.5	6.9
3	−33.4	−33.7	−35.6	−38.4	−40.7	−42.6	−42.5	−41.7	−43.8	−43.2	−41.7	−42.4	−39.98	−44.2	−33.0	11.2
4	−41.4	−45.0	−43.4	−41.5	−43.4	−40.1	−42.2	−44.1	−45.5	−46.1	−43.4	−43.4	−43.29	−46.1	−39.7	6.4
5	−42.5	−45.4	−47.7	−47.4	−46.9	−46.6	−45.6	−40.2	−38.4	−37.5	−38.3	−45.2	−43.48	**−47.7**	−37.1	10.6
6	−44.6	−40.7	−44.4	−44.4	−43.9	−39.4	−41.3	−40.4	−42.2	−39.2	−39.7	−42.2	−41.87	−44.7	−38.8	5.9
7	−40.6	−42.4	−42.4	−43.4	−42.4	−42.2	−42.4	−42.6	−42.4	−42.6	−43.5	−44.1	−42.58	−44.1	−41.8	2.3
8	−42.4	−42.9	−40.9	−40.7	−39.2	−38.9	−40.1	−39.2	−40.6	−40.6	−39.4	−40.4	−40.44	−44.0	−38.5	5.5
9	−38.5	−39.4	−38.9	−38.2	−36.8	−34.4	−35.1	−33.6	−32.4	−33.1	−29.4	−29.4	−34.93	−41.3	−29.0	12.3
10	−29.0	−27.4	−27.6	−27.3	−23.4	−20.3	−21.4	−21.4	−22.4	−22.2	−15.8	−17.4	−22.97	−30.7	−14.2	16.5
11	−19.2	−20.4	−22.2	−23.4	−25.1	−26.9	−27.3	−27.4	−28.6	−28.1	−29.4	−30.4	−25.70	−30.4	−14.2	16.2
12	−31.4	−32.7	−33.4	−33.4	−35.9	−37.2	−37.4	−39.3	−40.2	−41.3	−43.4	−43.1	−37.38	−43.4	−27.3	16.1
13	−40.4	−40.4	−40.6	−41.2	−41.1	−41.1	−40.0	−39.2	−38.4	−36.4	−34.3	−31.6	−38.73	−41.2	−31.2	10.0
14	−30.9	−29.4	−26.6	−25.8	−25.2	−22.2	−21.6	−20.7	−20.2	−20.0	−20.4	−19.4	−23.53	−30.9	−19.2	11.7
15	−19.6	−20.2	−20.6	−27.4	−31.4	−32.6	−32.8	−33.4	−34.8	−35.4	−35.1	−35.3	−29.88	−35.4	−19.2	16.2
16	−36.4	−36.4	−37.4	−38.5	−38.6	−38.7	−38.0	−38.4	−39.0	−38.4	−37.7	−35.9	−37.79	−39.0	−35.5	3.5
17	−33.4	−35.3	−37.4	−36.6	−35.8	−35.9	−37.3	−38.1	−38.4	−37.8	−39.0	−38.4	−36.95	−41.6	−32.3	9.3
18	−40.4	−42.5	−41.7	−39.2	−39.4	−37.6	−35.6	−34.1	−31.4	−29.8	−28.4	−28.7	−35.73	−42.5	−26.3	16.2
19	−29.2	−29.6	−32.6	−33.5	−34.9	−36.2	−37.8	−37.4	−38.2	−38.7	−38.4	−37.9	−35.37	−38.7	−26.3	12.4
20	−39.4	−37.6	−38.0	−37.2	−36.0	−34.4	−33.2	−31.6	−30.9	−29.0	−29.4	−28.4	−33.76	−39.4	−27.0	12.4
21	−29.4	−29.7	−29.7	−29.9	−30.1	−31.4	−28.9	−23.9	−23.7	−25.7	−25.9	−26.4	−27.89	−31.4	−22.8	8.6
22	−25.4	−25.4	−25.7	−26.6	−21.7	−22.6	−19.8	−19.8	−21.4	−22.8	−17.3	−17.4	−22.16	−26.6	− **8.0**	18.6
23	−17.2	−16.9	−13.1	−12.3	−11.4	−10.8	−16.4	−20.4	−25.0	−25.2	−26.6	−28.4	−18.64	−28.9	− 9.5	19.4
24	−26.1	−27.9	−29.4	−28.9	−29.4	−29.7	−29.6	−29.0	−26.5	−22.8	−20.7	−19.9	−26.66	−31.3	−18.8	12.5
25	−18.9	−20.8	−21.0	−20.8	−18.7	−17.5	−29.4	−34.4	−36.4	−37.1	−37.4	−36.9	−27.44	−37.6	−17.1	20.5
26	−36.6	−37.7	−37.7	−38.7	−37.6	−38.2	−38.4	−38.5	−39.2	−41.2	−42.6	−43.2	−39.13	−43.2	−25.9	17.3
27	−40.8	−40.6	−39.4	−40.9	−41.5	−42.2	−43.4	−44.4	−45.2	−46.2	−47.0	−44.3	−42.99	−47.0	−39.0	7.0
28	−43.7	−42.6	−42.5	−42.2	−41.7	−41.3	−40.9	−41.7	−41.6	−43.0	−44.7	−46.4	−42.69	−46.4	−40.5	5.9
Mean	−33.65	−34.17	−34.39	−34.69	−34.48	−34.14	−34.75	−34.51	−34.93	−34.81	−34.27	−34.53	−34.44	−39.1	−27.7	11.5

1901. March.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−45.2	−46.5	−44.2	−45.0	−43.4	−43.7	−41.3	−42.7	−42.4	−43.2	−43.2	−42.2	−43.58	**−46.6**	−40.9	5.7
2	−43.4	−43.4	−42.9	−43.1	−43.4	−43.4	−43.2	−43.2	−34.4	−32.4	−31.6	−31.4	−39.65	−43.4	−30.5	12.9
3	−31.6	−36.6	−41.4	−40.9	−40.4	−30.6	−31.4	−39.4	−38.4	−38.3	−37.7	−38.7	−37.12	−42.0	−29.8	12.2
4	−39.1	−37.7	−37.6	−38.2	−38.3	−37.4	−38.6	−39.1	−38.4	−37.6	−38.1	−37.4	−38.13	−39.1	−37.1	2.0
5	−36.6	−35.9	−39.1	−37.4	−38.8	−31.7	−30.4	−31.4	−29.1	−31.4	−31.4	−31.5	−33.73	−38.8	−28.2	10.6
6	−30.4	−36.8	−37.4	−38.1	−38.1	−38.3	−36.3	−35.3	−34.6	−33.4	−32.1	−31.2	−35.17	−38.3	−30.0	8.3
7	−30.4	−29.6	−30.9	−33.7	−32.4	−30.6	−31.3	−32.4	−33.2	−36.5	−37.4	−38.0	−33.03	−38.0	−28.2	9.8
8	−37.9	−37.4	−36.9	−37.2	−35.6	−36.9	−37.4	−39.2	−40.1	−40.4	−40.6	−40.0	−38.30	−40.6	−34.5	6.1
9	−40.2	−40.4	−40.2	−39.4	−39.4	−39.6	−40.4	−39.9	−41.8	−41.9	−42.3	−42.4	−40.66	−42.4	−39.2	3.2
10	−42.7	−42.6	−43.5	−43.6	−44.4	−44.0	−40.3	−35.2	−43.1	−43.5	−40.6	−35.4	−41.58	−44.4	−34.8	9.6
11	−40.4	−43.7	−43.5	−34.4	−43.4	−42.4	−41.4	−42.4	−42.7	−43.4	−43.1	−42.9	−41.98	−43.7	−34.0	9.7
12	−42.9	−43.9	−43.6	−43.6	−42.2	−40.8	−39.6	−40.4	−41.4	−40.9	−41.4	−41.2	−41.83	−43.9	−39.2	4.7
13	−40.9	−40.4	−40.4	−39.9	−38.9	−37.4	−36.6	−37.4	−37.4	−37.4	−33.4	−34.0	−37.84	−41.5	−29.0	12.5
14	−30.4	−34.6	−35.4	−35.4	−34.9	−34.9	−32.7	−34.7	−36.5	−40.0	−39.8	−40.4	−35.81	−40.4	−29.0	11.4
15	−40.2	−39.8	−39.4	−40.4	−38.4	−35.7	−36.4	−36.4	−37.9	−37.6	−37.9	−39.4	−38.29	−40.8	−35.3	5.5
16	−37.9	−39.0	−38.9	−39.4	−37.9	−37.2	−37.4	−38.5	−40.4	−40.7	−40.4	−41.4	−39.09	−41.4	−33.3	8.1
17	−41.7	−40.4	−40.4	−40.7	−38.4	−38.4	−37.2	−37.4	−38.4	−37.8	−39.2	−34.9	−38.74	−41.7	−34.5	7.2
18	−35.2	−38.9	−40.6	−37.9	−38.4	−36.4	−39.4	−38.7	−39.2	−38.0	−37.4	−37.6	−38.14	−40.6	−34.8	5.8
19	−39.4	−39.4	−39.7	−39.9	−40.6	−39.6	−35.6	−38.3	−40.2	−41.0	−42.2	−43.6	−39.96	−43.6	−35.2	8.4
20	−44.4	−44.9	−45.2	−44.7	−42.6	−42.5	−40.6	−41.4	−42.4	−41.9	−41.7	−41.4	−42.81	−45.3	−40.2	5.1
21	−41.5	−41.4	−42.6	−42.4	−40.0	−39.5	−38.6	−38.2	−40.7	−43.7	−43.6	−42.9	−41.26	−43.7	−37.8	5.9
22	−43.5	−42.9	−42.7	−42.2	−40.6	−37.5	−36.6	−36.3	−38.4	−38.8	−38.4	−38.6	−39.71	−44.1	−35.9	8.2
23	−39.7	−39.2	−36.4	−35.6	−35.0	−33.4	−32.0	−31.3	−31.2	−31.9	−31.6	−30.7	−34.00	−39.9	−30.3	9.6
24	−30.6	−29.5	−28.8	−28.4	−28.0	−28.2	−27.4	−26.2	−25.6	−25.4	−25.0	−23.0	−27.18	−32.0	−20.8	11.2
25	−22.8	−22.4	−21.6	−20.9	−20.7	−19.6	−18.5	−18.4	−17.4	−16.6	−13.1	−13.1	−18.76	−24.7	**−12.7**	12.0
26	−15.9	−15.6	−19.2	−21.3	−20.4	−22.9	−24.1	−25.4	−25.4	−26.7	−27.7	−28.5	−22.76	−28.5	−15.2	13.3
27	−29.4	−29.8	−29.5	−28.5	−31.4	−33.3	−29.9	−33.1	−30.5	−31.6	−30.5	−35.4	−31.08	−35.4	−25.0	10.4
28	−34.5	−35.0	−35.4	−32.4	−30.3	−28.4	−27.4	−27.4	−28.3	−28.1	−27.4	−26.6	−30.10	−35.4	−13.8	21.6
29	−24.6	−24.4	−25.4	−14.5	−13.8	−15.1	−15.1	−15.4	−15.4	−17.6	−20.4	−22.6	−18.69	−27.6	−13.0	14.6
30	−24.2	−25.4	−24.5	−24.2	−23.6	−22.7	−23.4	−24.2	−25.4	−25.2	−25.2	−24.4	−24.37	−25.5	−21.5	4.0
31	−26.4	−28.3	−30.9	−32.4	−29.4	−29.4	28.5	−29.3	−31.5	−32.4	−33.4	−32.6	−30.38	−36.8	−23.7	13.1
Mean	−35.61	−36.32	−36.71	−35.99	−35.58	−34.56	−33.84	−34.47	−34.90	−35.33	−35.09	−34.95	−35.28	−39.0	−29.9	9.1

1901. April

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−34.5	−36.3	−36.4	−35.7	−33.1	−32.3	−30.0	−29.0	−31.4	−33.5	−35.0	−34.8	−33.50	−36.3	−26.0	10.3
2	−35.4	−36.4	−32.2	−31.7	−29.3	−26.6	−27.1	−27.4	−29.5	−30.5	−30.1	−29.2	−30.45	−36.4	−24.0	12.4
3	−28.4	−28.4	−28.4	−28.7	−27.1	−26.4	−24.1	−25.6	−27.4	−28.8	−29.7	−30.6	−27.80	−30.6	−22.8	7.8
4	−32.4	−31.9	−31.4	−31.2	−30.4	−29.4	−27.8	−29.5	−31.2	−31.6	−32.0	−32.4	−30.93	−33.8	−25.5	8.3
5	−32.7	−33.0	−33.4	−31.4	−30.2	−27.6	−24.7	−23.4	−22.8	−14.4	−14.4	−14.4	−25.20	−34.5	−12.9	21.6
6	−14.9	−15.4	−16.4	−17.9	−16.6	−17.4	−17.6	−17.5	−18.2	−16.5	−13.5	−17.3	−16.60	−18.2	−12.1	6.1
7	−21.2	−24.2	−25.9	−26.5	−26.6	−27.1	−27.3	−27.4	−28.7	−29.4	−30.2	−31.7	−27.18	−31.7	−12.1	19.6
8	−31.9	−33.3	−33.1	−32.3	−30.6	−30.4	−28.6	−29.3	−31.4	−32.3	−32.6	−32.4	−31.52	−33.6	−28.2	5.4
9	−34.0	−34.2	−32.9	−30.7	−30.4	−30.7	−31.0	−31.6	−34.2	−31.4	−34.4	−34.6	−32.51	−34.6	−29.5	5.1
10	−34.4	−35.2	−34.9	−34.6	−32.2	−30.5	−30.0	−28.2	−27.1	−25.4	−23.9	−21.5	−29.83	−35.2	−21.1	14.1
11	−21.9	−22.0	−22.8	−28.4	−29.4	−30.9	−31.9	−32.6	−32.7	−34.4	−34.4	−36.4	−29.82	−36.4	−20.7	15.7
12	−39.4	−36.6	−37.2	−31.9	−34.6	−34.1	−34.4	−34.4	−33.4	−34.4	−29.2	−30.0	−34.13	**−39.4**	−27.2	12.2
13	−36.9	−38.4	−37.4	−36.4	−36.7	−35.3	−35.1	−34.6	−34.9	−34.4	−35.0	−35.6	−35.89	−38.4	−33.0	5.4
14	−31.4	−32.4	−34.9	−33.6	−32.7	−32.1	−30.7	−30.4	−31.9	−31.4	−30.7	−31.3	−31.96	−35.0	−28.2	6.8
15	−30.7	−29.9	−29.4	−30.4	−27.5	−26.2	−29.1	−29.8	−29.9	−29.9	−30.2	−30.9	−29.49	−30.9	−24.4	6.5
16	−29.4	−28.6	−26.4	−24.4	−23.5	−22.2	−21.3	−21.3	−22.4	−22.4	−23.0	−23.4	−24.03	−31.1	−19.6	11.5
17	−23.4	−23.5	−23.4	−23.0	−20.6	−20.4	−20.1	−19.6	−20.1	−20.4	−20.6	−20.6	−21.31	−23.5	−18.8	4.7
18	−20.5	−20.3	−19.5	−18.7	−18.4	−17.7	−17.5	−17.4	−18.5	−18.6	−19.8	−19.4	−18.86	−20.8	−16.8	4.0
19	−17.0	−16.7	−16.6	−17.4	−16.6	−15.6	−15.7	−17.4	−19.1	−20.4	−20.5	−21.4	−17.87	−21.4	−14.8	6.6
20	−24.6	−24.6	−26.4	−25.4	−22.3	−21.6	−19.1	−19.9	−19.4	−18.7	−18.7	−19.7	−21.70	−26.4	−16.2	10.2
21	−19.3	−19.3	−18.0	−18.1	−23.0	−20.5	−21.2	−21.5	−20.0	−22.5	−24.4	−23.3	−21.00	−24.7	−17.2	7.5
22	−23.1	−23.4	−22.6	−22.5	−21.5	−18.6	−19.5	−19.4	−21.3	−21.4	−23.6	−23.3	−21.68	−27.1	−17.8	9.3
23	−25.1	−23.7	−22.5	−24.3	−24.3	−23.5	−23.3	−24.5	−24.7	−25.3	−26.7	−27.5	−24.62	−27.5	−22.4	5.1
24	−27.3	−27.3	−27.3	−25.3	−24.7	−23.3	−24.1	−23.9	−25.5	−27.3	−29.3	−27.5	−26.07	−29.3	−21.7	7.6
25	−28.6	−24.7	−23.4	−22.9	−21.5	−23.9	−22.5	−24.1	−25.5	−26.1	−27.1	−27.1	−24.78	−28.6	−20.7	7.9
26	−29.1	−30.2	−29.6	−28.1	−24.0	−20.1	−19.1	−18.5	−17.5	−16.9	−18.7	−19.5	−22.61	−32.4	−16.3	16.1
27	−20.5	−19.9	−19.7	−16.4	−16.7	−16.3	−12.3	−15.1	−18.1	−20.1	−22.0	−24.1	−18.43	−24.1	**−9.6**	14.5
28	−24.3	−24.5	−26.2	−22.7	−17.5	−16.3	−16.0	−16.5	−15.6	−17.1	−17.1	−17.3	−19.26	−26.2	−13.0	13.2
29	−17.1	−17.5	−15.9	−15.7	−16.0	−16.5	−16.5	−16.9	−16.6	−17.5	−18.6	−19.6	−17.03	−19.6	−15.1	4.5
30	−20.8	−21.9	−21.5	−21.7	−21.2	−20.1	−19.6	−19.3	−18.8	−20.9	−21.3	−20.5	−20.63	−23.7	−18.1	5.6
Mean	−27.01	−27.12	−26.89	−26.27	−25.31	−24.45	−23.91	−24.20	−24.93	−25.13	−25.56	−25.91	−25.56	−29.7	−20.2	9.5

1901. May.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−21.5	−21.3	−23.3	−20.5	−23.3	−18.1	−22.7	−24.0	−22.1	−20.0	−22.7	−24.3	−21.99	−24.3	−17.2	7.1
2	−24.1	−24.9	−24.9	−22.3	−22.0	−21.5	−21.3	−22.1	−21.6	−18.7	−19.2	−22.1	−22.06	**−24.9**	−15.9	9.0
3	−22.7	−21.9	−19.5	−22.8	−22.0	−21.1	−20.1	−18.9	−18.1	−18.1	−19.7	−21.1	−20.50	−23.8	−17.4	6.4
4	−23.5	−21.7	−20.8	−17.9	−15.7	−14.1	−11.4	−12.1	−12.0	−15.4	−14.8	−16.1	−16.29	−23.5	− 9.5	14.0
5	−17.0	−16.2	−14.3	−13.8	−13.6	−14.9	−15.3	−14.5	−14.6	−15.2	−15.4	−14.9	−14.98	−17.0	−12.6	4.4
6	−16.9	−17.1	−17.3	−19.7	−19.5	−19.8	−19.7	−19.3	−18.4	−20.8	−20.3	−19.9	−19.06	−20.8	−14.6	6.2
7	−18.6	−16.9	−15.3	−13.5	−13.1	−11.8	−11.6	−11.7	−12.3	−14.0	−16.1	−16.7	−14.30	−20.4	−10.9	9.5
8	−17.0	−17.2	−17.1	−16.3	−16.5	−15.9	−14.9	−15.1	−14.8	−15.4	−15.1	−15.8	−15.93	−17.5	−13.5	4.0
9	−16.3	−16.5	−16.3	−15.8	−13.7	−14.6	−14.2	−14.5	−15.5	−16.9	−17.2	−17.3	−15.73	−17.3	−12.5	4.8
10	−15.8	−16.9	−16.5	−15.5	−14.2	−12.9	−12.3	−12.2	−12.3	−12.9	−11.3	−11.8	−13.72	−17.7	−11.2	6.5
11	−11.5	−12.3	−12.3	−11.6	−10.8	−10.0	− 9.7	− 9.5	− 9.2	− 9.5	−10.7	−11.2	−10.69	−12.9	− 8.6	4.3
12	−12.9	−12.3	−11.7	−10.3	−10.5	−10.7	−10.6	−12.7	−12.7	−12.5	−13.2	−14.4	−12.04	−14.4	− 9.0	5.1
13	−14.4	−13.7	−12.7	−12.3	−10.9	− 9.5	− 8.6	− 8.2	− 8.6	− 8.9	− 9.0	− 8.3	−10.43	−14.4	− 7.7	6.7
14	− 8.5	− 8.8	− 8.6	− 8.4	− 8.0	− 7.8	− 7.3	− 7.3	− 7.5	− 7.6	− 7.7	− 7.8	− 7.94	− 9.3	− 6.3	3.0
15	− 8.0	− 7.3	− 6.0	− 6.3	− 7.2	−11.9	−12.5	−12.9	−13.5	−13.7	−14.3	−15.2	−10.73	−15.2	− 6.0	9.2
16	−19.3	−20.3	−20.5	*−18.2*	−15.9	−15.5	−15.5	−15.2	−15.6	−16.7	−17.3	−17.1	−16.73	−21.8	−13.9	7.9
17	−16.6	−16.2	−14.5	−17.3	−16.2	−14.7	−14.6	−13.7	−14.0	−14.9	−15.1	−13.7	−15.13	−18.7	−10.8	7.9
18	−12.9	−12.0	−10.3	− 7.4	− 6.6	− 3.4	− 4.7	− 3.2	− 3.7	− 4.6	− 5.0	− 4.4	− 6.52	−12.9	− 2.1	10.8
19	− 5.4	− 5.9	− 5.0	− 5.2	− 4.1	− 4.6	− 4.5	− 4.4	− 4.6	− 5.3	− 5.4	− 6.2	− 5.05	− 6.2	− 2.8	3.4
20	− 8.2	− 7.8	− 8.3	− 8.8	− 9.9	− 8.4	− 8.8	− 9.3	− 9.4	−11.1	−12.1	−12.9	− 9.58	−12.9	− 4.5	8.4
21	−14.3	−15.3	−14.5	−12.6	−10.7	− 6.3	− 8.7	− 7.9	− 7.8	− 7.8	− 7.4	− 7.4	−10.56	−15.3	− 6.3	9.0
22	− 7.0	− 6.8	− 6.7	− 7.0	− 6.7	− 4.9	− 3.8	− 3.6	− 3.9	− 3.9	− 3.9	− 3.5	− 5.06	− 8.0	− 2.2	5.8
23	− 3.4	− 3.0	− 3.0	− 2.7	− 2.5	− 2.1	− 1.2	− 1.3	− 1.0	− 0.1	− 0.2	− 1.3	− 1.82	− 4.8	0.0	4.8
24	− 2.7	− 3.6	− 3.9	− 4.1	− 6.7	− 9.2	− 9.9	−10.5	−10.7	−11.3	−12.6	−13.3	− 8.21	−13.3	**0.1**	13.4
25	−13.7	−13.9	−13.5	−12.7	−11.3	− 7.3	− 8.2	− 7.0	− 6.4	− 6.7	− 6.6	− 7.0	− 9.53	−13.9	− 5.9	8.0
26	*− 6.6*	− 6.2	− 6.2	− 5.6	− 4.8	− 3.8	− 3.2	− 2.6	− 2.8	− 3.1	− 3.4	− 3.5	− 4.32	− 7.1	− 2.0	5.1
27	− 3.9	− 4.7	− 4.2	− 4.0	− 3.8	− 3.7	− 2.6	− 2.0	− 2.3	− 2.8	− 2.9	− 3.3	− 3.35	− 5.0	− 0.8	4.2
28	− 5.4	− 6.6	− 9.2	−11.1	−12.3	−12.4	−12.4	−11.7	−12.1	−11.7	−11.3	−12.2	−10.70	−13.4	− 2.1	11.3
29	−11.5	−11.5	−10.4	−10.7	− 9.1	− 9.7	− 9.5	−10.7	−10.8	−11.3	−10.2	−10.4	−10.48	−12.4	− 8.2	4.2
30	−12.3	*−11.9*	−11.5	−11.2	− 8.4	−10.6	−10.2	− 9.2	− 9.7	−10.9	−12.2	−13.7	−10.98	−13.7	− 5.3	8.4
31	−13.8	−14.7	−14.2	−13.3	−13.1	−11.7	−10.3	− 9.0	− 8.1	− 8.0	− 7.9	− 8.6	−11.06	−15.4	− 7.8	7.6
Mean	−13.09	−13.08	−12.66	−12.22	−11.71	−11.06	−10.98	−10.85	−10.84	−11.28	−11.62	−12.11	−11.79	−15.1	− 8.0	7.1

1901. June.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−8.6	−8.5	−8.4	−8.2	−7.6	−7.1	−6.8	−6.8	−7.4	−6.8	−6.2	−6.4	−7.40	−8.9	−5.1	3.8
2	−6.4	−6.4	−6.0	−6.5	−5.4	−5.8	−5.1	−5.2	−5.1	−4.4	−4.3	−4.4	−5.42	−7.4	−3.8	3.6
3	−3.4	−5.1	−7.7	−7.7	−7.4	−6.1	−7.3	−7.2	−7.4	−6.9	−7.5	−7.6	−6.78	−7.7	−3.3	4.4
4	−8.4	−9.2	−9.4	−7.4	−7.3	−5.0	−4.2	−4.6	−4.7	−5.4	−7.6	−7.3	−6.71	**−9.8**	−3.3	6.5
5	−7.2	−6.6	−6.8	−7.4	−6.6	−6.6	−6.0	−4.8	−5.0	−4.4	−4.1	−4.0	−5.79	−8.8	−4.0	4.8
6	−4.2	−4.0	−3.1	−3.5	−3.5	−2.2	−5.4	−5.8	−5.6	−3.8	−5.0	−5.4	−4.29	−6.4	−1.5	4.9
7	−6.3	−6.0	−6.4	−8.5	−5.9	−5.2	−4.7	−4.7	−5.6	−5.4	−5.5	−9.4	−6.13	−9.4	−3.9	5.5
8	−8.2	−7.6	−6.8	−6.8	−5.8	−6.2	−6.5	−4.6	−4.6	−5.4	−5.7	−4.5	−6.06	**−9.8**	−3.9	5.9
9	−4.3	−4.1	−3.9	−6.3	−5.6	−6.2	−5.7	−5.6	−5.6	−5.9	−6.1	−6.0	−5.44	−6.6	−3.4	3.2
10	−6.0	−5.3	−5.5	−6.0	−5.4	−4.8	−4.4	−4.0	−3.2	−3.0	−3.0	−3.3	−4.49	−6.7	−2.3	4.4
11	−5.6	−5.1	−3.0	−1.5	−1.0	−0.5	−1.5	0.4	−1.1	−1.8	−2.5	−2.8	−2.17	−5.6	0.7	6.3
12	−2.7	−2.4	−3.0	−2.2	−1.3	−0.6	0.0	−1.1	−1.6	−2.4	−2.4	−2.7	−1.87	−3.0	0.5	3.5
13	−2.8	−3.1	−3.1	−2.7	−3.1	−2.7	−2.2	−2.2	−2.0	−2.0	−2.2	−2.3	−2.53	−3.5	−1.1	2.4
14	−1.7	−1.0	−0.5	−0.2	0.8	1.0	0.1	0.0	0.2	0.5	−0.4	−3.3	−0.38	−3.3	1.8	5.1
15	−3.4	−3.2	−3.4	−3.6	−2.0	−1.9	−1.2	0.1	−1.4	−1.7	−2.4	−2.9	−2.25	−4.1	0.8	4.9
16	−2.6	−2.5	−2.0	−1.6	1.0	0.9	0.3	0.5	0.6	0.4	0.4	0.6	−0.33	−3.6	2.5	6.1
17	−0.6	−0.8	−0.6	−2.5	0.0	−0.1	−0.9	−0.8	−0.6	−0.1	0.3	0.7	−0.50	−2.9	1.4	4.3
18	1.1	2.0	1.6	2.0	3.9	4.7	3.0	2.0	1.8	0.6	1.6	1.4	2.14	0.2	5.0	4.8
19	0.9	1.8	1.6	3.4	1.2	2.4	1.4	1.0	0.0	0.0	−1.0	−2.2	0.88	−2.2	3.5	5.7
20	−2.8	−3.2	−2.0	−0.3	−0.2	0.5	0.8	1.2	0.3	−0.2	−0.4	−0.7	−0.58	−3.2	1.7	4.9
21	−0.7	−0.4	−0.1	0.9	1.0	2.3	1.3	2.9	2.6	4.0	2.8	1.0	1.47	−0.7	4.0	4.7
22	2.8	0.0	−0.2	0.4	1.7	1.3	1.9	1.5	−0.3	−1.0	−0.6	−1.4	0.51	−1.4	4.0	5.4
23	−1.3	−2.0	−1.6	−1.0	0.1	1.2	1.8	1.9	2.1	2.7	1.2	0.2	0.44	−2.2	2.7	4.9
24	−0.2	−0.9	−0.8	−0.5	−0.2	0.6	0.5	0.6	0.6	0.3	1.4	0.5	0.16	−1.7	2.0	3.7
25	−0.3	−0.2	1.5	2.0	1.3	1.2	0.9	0.8	0.9	0.9	1.6	1.0	0.97	−0.3	2.0	2.3
26	0.7	0.9	1.0	1.4	1.8	2.2	2.8	2.4	3.6	3.9	3.7	3.0	2.28	0.4	4.0	3.6
27	3.8	2.4	2.4	3.4	3.2	4.2	4.7	3.6	2.7	4.2	3.8	3.5	3.49	2.1	5.0	2.9
28	2.6	2.5	1.7	1.7	1.3	2.3	4.2	5.7	7.1	6.8	5.2	4.7	3.79	1.3	**8.0**	6.7
29	2.0	2.4	2.8	2.9	3.2	2.4	2.9	2.4	2.6	1.3	1.2	1.4	2.29	1.2	5.0	3.8
30	1.6	2.0	2.1	2.3	3.0	3.4	4.2	3.2	2.6	2.4	1.7	2.2	2.54	0.8	4.5	3.7
Mean	−2.41	−2.45	−2.32	−2.13	−1.49	−1.01	−1.04	−0.91	−1.12	−1.09	−1.40	−1.88	−1.60	−3.8	0.9	4.6

1901. July.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	2.2	2.7	2.7	3.6	5.8	6.0	7.4	6.8	5.8	5.3	4.5	3.2	4.67	1.1	8.0	6.9
2	3.0	3.3	3.0	1.7	1.6	1.8	1.3	1.5	1.1	0.7	0.7	0.2	1.66	0.2	6.1	5.9
3	0.4	1.0	0.6	1.5	1.0	1.5	1.4	1.8	1.9	1.0	—0.2	—0.5	0.95	—0.5	2.9	3.4
4	0.3	0.3	0.4	1.0	0.5	0.9	0.6	0.0	0.1	0.0	0.3	0.5	0.41	—0.4	2.3	2.7
5	0.7	0.6	0.3	0.1	1.0	2.4	3.4	3.3	4.5	3.7	3.5	2.3	2.15	0.1	5.4	5.3
6	0.9	0.8	1.5	2.0	2.7	2.4	2.1	1.8	1.1	0.8	0.8	0.4	1.44	0.4	3.5	3.1
7	1.8	2.8	2.5	1.5	1.5	2.2	2.0	1.9	1.2	1.0	0.9	1.3	1.72	0.6	3.2	2.6
8	1.0	1.7	1.1	0.9	1.9	4.4	4.0	4.8	5.2	4.0	4.3	3.5	3.07	0.6	6.1	5.5
9	3.2	3.0	3.6	4.5	3.1	4.2	4.2	4.3	4.3	3.8	3.6	2.4	3.68	2.4	5.1	2.7
10	2.9	2.8	2.8	4.8	6.5	7.5	7.6	7.4	7.5	7.7	6.7	4.8	5.75	2.1	8.8	6.7
11	5.0	5.8	5.8	6.2	6.4	6.0	7.5	7.8	7.9	7.3	6.3	5.9	6.49	3.5	9.2	5.7
12	5.4	6.2	6.6	7.1	7.5	9.0	7.4	7.3	7.5	6.5	7.1	5.8	6.95	5.1	10.8	5.7
13	7.0	6.4	6.6	7.3	4.0	6.1	5.2	6.2	5.4	4.0	5.2	3.8	5.60	3.8	7.7	3.9
14	4.0	4.3	3.4	6.2	4.7	5.3	10.7	7.0	7.9	7.2	8.1	6.4	6.27	2.0	**11.5**	9.5
15	3.3	4.8	6.2	4.8	5.1	6.4	6.8	6.2	5.5	4.6	3.5	4.0	5.10	2.7	8.7	6.0
16	4.0	3.2	2.2	2.1	2.0	2.3	2.7	2.3	2.9	2.4	2.0	1.8	2.49	1.8	5.6	3.8
17	0.8	0.4	0.4	1.0	2.0	2.5	2.3	3.4	2.5	2.4	1.8	1.4	1.74	0.4	4.5	4.1
18	0.8	0.6	0.1	0.2	0.7	1.7	2.0	1.7	1.4	1.2	1.0	0.2	0.97	—0.5	3.0	3.5
19	0.0	—0.4	—0.4	—0.3	0.0	0.9	1.0	0.5	0.6	0.8	0.9	1.2	0.40	**—1.0**	1.2	2.2
20	0.8	0.4	1.2	1.9	3.0	4.0	4.4	4.2	3.7	2.4	1.7	0.8	2.38	0.0	5.2	5.2
21	0.4	0.8	1.1	0.9	2.6	4.0	1.2	2.4	4.0	5.3	3.8	2.6	2.43	0.1	5.9	5.8
22	2.4	3.1	3.8	3.5	3.8	4.4	4.6	5.0	4.4	4.4	2.8	2.3	3.71	2.3	7.3	5.0
23	1.6	1.5	1.6	1.2	1.8	2.2	1.8	2.1	2.4	2.0	2.1	1.8	1.84	0.8	3.3	2.5
24	1.1	1.6	1.2	0.7	0.8	0.9	1.3	1.8	1.5	2.3	2.2	2.0	1.45	0.4	2.9	2.5
25	1.8	1.6	1.4	1.5	1.4	2.1	2.0	2.2	2.1	1.7	1.8	1.9	1.79	0.8	2.7	1.9
26	2.2	2.0	1.9	2.3	1.8	2.9	2.4	2.9	2.3	2.5	2.3	2.3	2.32	1.5	3.6	2.1
27	2.3	2.2	2.0	2.4	3.8	4.0	3.6	5.0	3.0	2.2	3.4	2.9	3.07	1.7	5.9	4.2
28	2.4	2.1	2.0	2.2	3.1	3.9	4.2	3.5	3.9	3.6	2.1	3.0	3.00	1.9	4.9	3.0
29	2.2	2.8	2.7	3.0	2.6	2.4	2.4	2.7	2.9	2.6	2.2	2.0	2.54	2.0	4.2	2.2
30	2.1	2.2	2.6	2.0	1.7	2.7	3.3	2.4	1.5	1.9	1.9	0.6	2.08	0.6	3.7	3.1
31	0.4	1.1	1.0	1.5	2.4	3.0	3.9	4.3	3.7	3.4	2.8	1.7	2.43	0.4	5.1	4.7
Mean	2.14	2.31	2.32	2.56	2.80	3.55	3.70	3.69	3.54	3.18	2.91	2.34	2.92	1.2	5.4	4.2

1901. August.

Gaasefjord. 1st to 12th $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	1.6	1.4	1.6	2.2	1.9	1.9	2.1	3.2	2.8	2.8	2.6	2.8	2.24	1.4	3.7	2.3
2	3.7	3.6	3.4	3.6	3.4	2.7	3.1	2.8	2.5	2.5	2.5	2.6	3.03	2.0	4.2	2.2
3	2.9	2.0	2.8	3.6	3.5	3.5	3.0	3.7	3.6	3.8	2.9	3.5	3.23	1.8	5.6	3.8
4	2.5	3.0	4.0	2.3	1.6	2.3	2.8	2.3	2.4	1.7	1.7	1.7	2.36	1.6	4.5	2.9
5	1.6	1.4	1.2	1.2	1.6	1.4	1.6	1.8	1.3	−0.1	0.0	0.0	1.08	−0.3	2.4	2.7
6	−0.6	−0.1	−0.8	−0.4	−0.2	0.9	1.9	2.1	2.0	1.8	1.6	1.4	0.80	−0.8	2.8	3.6
7	1.2	1.0	1.0	1.0	1.2	1.5	2.7	3.3	2.4	2.7	3.1	2.2	1.94	0.8	4.6	3.8
8	2.4	1.9	1.7	2.4	3.3	4.7	3.4	1.4	0.5	0.1	−0.1	−0.5	1.77	−0.5	5.1	5.6
9	−1.0	−1.0	−1.1	−0.4	0.9	1.9	2.5	3.0	3.4	2.7	1.6	0.1	1.05	−1.4	4.4	5.8
10	0.9	0.9	1.0	1.5	1.4	2.4	2.8	3.4	2.1	2.1	2.2	2.4	1.93	0.2	4.0	3.8
11	1.2	1.0	1.8	2.5	1.5	0.9	1.8	1.3	1.5	0.7	0.6	1.0	1.32	−0.1	2.8	2.9
12	0.8	0.7	0.9	0.3	−0.1	−0.2	−0.1	0.0	0.2	−0.2	−0.9	−1.5	−0.01	−1.5	1.7	3.2
13*	−1.8	−1.5	−1.3	−1.1	−1.0	−1.2	−0.6	1.0	0.4	−1.3	−2.1	−2.5	−1.08	−2.5	2.0	4.5
14	−3.0	−2.3	−1.5	−1.8	−2.1	0.1	2.9	3.8	3.5	2.5	0.8	3.0	0.49	−3.0	4.9	7.9
15	−0.8	−1.5	−1.0	−0.3	0.5	2.9	3.6	2.2	1.3	2.0	2.7	2.8	1.20	−1.5	5.6	7.1
16	2.0	0.6	3.7	3.8	3.6	3.9	5.6	7.0	6.0	5.8	6.6	4.2	4.40	0.2	**7.8**	7.6
17	3.4	3.7	3.0	1.1	2.2	3.7	3.6	2.6	2.7	3.0	2.2	2.2	2.78	1.1	4.5	3.4
18	1.1	1.0	1.0	1.2	1.3	1.5	1.9	1.4	1.5	1.0	1.0	1.6	1.29	0.5	3.0	2.5
19	2.2	2.0	1.7	1.7	2.2	1.9	1.7	2.6	2.1	1.8	1.4	1.1	1.87	1.1	3.0	1.9
20	0.9	1.0	1.4	1.4	1.7	1.9	0.9	0.5	0.8	0.3	−0.8	−0.9	0.76	−0.9	2.9	3.8
21	−1.0	−1.1	−0.8	−0.8	−0.5	−0.1	0.4	0.7	0.6	0.3	−0.1	−0.8	−0.27	−1.1	1.4	2.5
22	−0.9	−1.0	−1.3	−0.4	0.2	0.2	0.1	0.2	0.1	−0.2	−0.1	0.0	−0.26	−1.3	1.0	2.3
23	−0.1	0.0	−0.5	−0.5	−0.3	−0.1	0.2	1.1	0.5	−0.8	0.6	0.2	0.03	−1.2	1.3	2.5
24	−0.7	−0.6	−0.1	0.9	1.0	0.0	0.8	1.1	1.6	1.2	0.2	0.4	0.48	−1.3	2.3	3.6
25	−1.3	−1.8	−2.2	−1.3	−0.9	0.6	0.7	1.7	2.1	0.5	1.0	3.0	0.02	−2.5	5.5	8.0
26	3.7	4.1	3.9	3.7	5.6	5.0	4.2	4.1	2.3	1.8	2.4	2.1	3.58	1.8	6.0	4.2
27	1.4	3.0	2.5	1.9	2.4	3.0	3.4	2.8	2.2	1.6	1.2	0.8	2.18	0.8	4.0	3.2
28	0.4	0.5	0.1	0.5	0.4	0.7	0.8	0.5	0.3	0.1	−1.4	−2.0	0.08	−2.0	1.8	3.8
29	−2.1	−2.6	−3.3	−2.6	−1.8	−0.6	−0.6	0.1	0.8	−0.7	−2.1	−3.2	−1.56	−3.5	1.2	4.7
30	−3.2	−3.8	−4.5	−4.3	−5.2	−5.1	−4.2	−4.3	−3.6	−4.5	−4.6	−5.1	−4.37	−5.6	0.0	5.6
31	−6.4	−6.1	−5.6	−5.3	−3.6	−3.5	−3.9	−3.8	−4.0	−5.2	−5.6	−5.4	−4.87	**−6.4**	−2.2	4.2
Mean	0.35	0.30	0.41	0.57	0.83	1.25	1.58	1.73	1.48	0.96	0.68	0.55	0.89	−0.8	3.3	4.1

* From the 13th August to the 5th September under way working southwards in the Gaasefjord.

1901. September

6th to 30th Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−5.0	−4.9	−4.8	−4.6	−2.9	−1.0	1.8	0.3	0.6	−1.6	−0.4	−0.6	−1.92	−6.0	2.4	8.4
2	−0.7	−0.6	−0.1	0.2	0.7	1.4	0.7	0.8	0.4	0.6	0.6	0.7	0.39	−1.4	2.0	3.4
3	0.8	0.7	1.0	1.3	1.7	2.2	2.2	2.3	1.1	0.6	0.4	0.0	1.19	0.0	**3.0**	3.0
4	−0.2	−0.4	−0.5	−0.4	0.0	−1.1	−1.1	−2.0	−2.7	−2.8	−4.8	−4.4	−1.70	−4.8	0.4	5.2
5	−3.8	−3.9	−4.2	−4.1	−3.8	−2.6	−2.4	−2.7	−3.5	−4.2	−6.2	−5.5	−3.91	−6.8	−1.6	5.2
6	−6.7	−5.8	−5.4	−4.9	−5.6	−5.8	−4.8	−4.3	−3.7	−5.0	−6.2	−6.8	−5.42	−6.8	−2.9	3.9
7	−7.1	−6.2	−5.2	−4.8	−4.7	−4.6	−4.7	−5.0	−5.5	−6.2	−6.3	−6.6	−5.58	−7.1	−3.8	3.3
8	−6.2	−6.0	−5.6	−5.2	−4.6	−3.9	−2.9	−0.9	−1.2	−1.6	−1.6	−2.7	−3.53	−6.7	0.0	6.7
9	−1.6	−1.8	−4.2	−4.1	−3.6	−3.6	−3.2	−4.2	−5.6	−5.3	−4.8	−4.8	−3.90	−5.6	−0.7	4.9
10	−4.9	−5.0	−5.3	−5.3	−4.6	−4.1	−3.6	−4.0	−4.6	−6.0	−5.4	−7.2	−5.00	−7.2	−3.5	3.7
11	−7.5	−7.5	−8.0	−6.8	−5.7	−5.5	−4.8	−4.6	−6.1	−6.7	−7.6	−6.1	−6.41	−8.6	−4.5	4.1
12	−6.2	−7.0	−7.6	−6.5	−4.0	−5.3	−4.1	−3.8	−3.9	−4.1	−4.6	−4.2	−5.11	−7.6	−3.5	4.1
13	−3.8	−4.0	−4.4	−5.2	−4.8	−6.2	−6.0	−6.5	−5.8	−5.9	−5.6	−7.1	−5.44	−7.1	−3.4	3.7
14	−7.7	−7.8	−7.8	−7.6	−7.6	−7.7	−7.1	−7.9	−8.6	−8.9	−9.6	−10.6	−8.24	−10.6	−6.9	3.7
15	−11.8	−10.5	−10.2	−10.5	−10.5	−9.7	−9.1	−10.1	−11.1	−11.4	−10.4	−9.6	−10.41	−12.1	−8.9	3.2
16	−8.8	−9.0	−9.0	−8.2	−7.7	−7.4	−8.0	−9.3	−10.7	−11.6	−12.1	−12.4	−9.52	−12.4	−7.0	5.4
17	−13.3	−13.5	−13.4	−13.0	−12.1	−11.7	−10.5	−9.4	−9.4	−9.0	−9.0	−8.6	−11.08	−13.9	−8.6	5.3
18	−8.2	−8.6	−8.4	−8.4	−8.8	−8.2	−9.1	−9.0	−10.6	−11.7	−12.6	−12.1	−9.64	−12.6	−7.0	5.6
19	−10.5	−10.5	−9.2	−7.4	−6.7	−7.4	−6.0	−6.5	−7.9	−8.4	−7.8	−7.6	−7.99	−10.5	−5.9	4.6
20	−7.2	−7.1	−6.8	−6.6	−6.6	−7.2	−7.8	−7.8	−8.1	−8.3	−9.6	−10.6	−7.81	−10.6	−6.5	4.1
21	−9.5	−10.3	−12.3	−11.8	−12.3	−9.8	−10.5	−10.7	−11.3	−11.7	−12.1	−13.1	−11.28	−13.1	−7.8	5.3
22	−14.0	−14.1	−14.3	−14.3	−13.9	−13.9	−13.4	−14.3	−15.3	−15.7	−15.5	−15.1	−14.48	−15.7	−12.9	2.8
23	−15.1	−14.1	−13.6	−13.0	−12.1	−11.3	−11.5	−11.9	−13.1	−13.3	−12.7	−11.7	−12.78	−15.3	−11.2	4.1
24	−11.6	−12.6	−13.3	−12.5	−12.7	−11.7	−11.5	−12.5	−11.3	−11.2	−11.9	−13.1	−12.16	−13.5	−11.0	2.5
25	−14.2	−13.3	−13.6	−13.4	−12.6	−12.9	−11.8	−13.5	−12.8	−12.4	−12.2	−11.2	−12.83	−14.4	−9.5	4.9
26	−10.4	−10.4	−9.8	−9.5	−8.6	−8.4	−9.9	−10.2	−9.9	−9.6	−10.1	−10.5	−9.78	−10.5	−8.2	2.3
27	−11.1	−11.7	−13.7	−15.1	−16.9	−17.6	−17.8	−18.8	−20.4	−19.8	−18.7	−19.1	−16.73	−20.8	−9.3	11.5
28	−21.1	−19.3	−17.1	−16.9	−17.5	−18.2	−18.5	−18.4	−17.9	−17.3	−16.3	−14.4	−17.74	**−21.1**	−13.5	7.6
29	−13.9	−14.1	−13.7	−13.6	−13.5	−12.8	−13.1	−13.0	−13.1	−13.1	−13.8	−13.9	−13.47	−17.8	−12.2	5.6
30	−14.3	−15.1	−14.5	−14.3	−14.1	−13.3	−12.1	−11.9	−14.4	−13.3	−13.1	−12.5	−13.58	−15.2	−11.8	3.4
Mean	−8.52	−8.48	−8.50	−8.22	−7.87	−7.64	−7.35	−7.66	−8.21	−8.50	−8.67	−8.71	−8.19	−10.5	−5.8	4.7

1901. October.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−12.3	−11.5	−12.3	−13.1	−13.3	−13.5	−14.0	−13.9	−14.1	−15.4	−14.8	−14.0	−13.52	−15.4	−11.4	4.0
2	−16.3	−17.1	−16.9	−19.5	−19.5	−19.5	−19.3	−19.9	−20.0	−20.7	−20.3	−19.5	−19.04	−20.8	−13.8	7.0
3	−19.0	−18.7	−19.9	−18.5	−17.1	−14.9	−14.4	−14.7	−15.3	−16.9	−16.1	−16.3	−16.82	−20.7	−14.0	6.7
4	−16.1	−15.5	−15.3	−14.5	−14.9	−15.9	−16.5	−17.3	−17.8	−18.0	−18.1	−17.9	−16.48	−18.1	−14.4	3.7
5	−17.3	−16.7	−16.7	−17.0	−17.7	−18.1	−17.9	−17.5	−17.4	−17.1	−17.1	−17.1	−17.30	−18.8	−16.2	2.6
6	−16.5	−16.5	−17.5	−16.9	−14.8	−13.5	−13.3	−13.1	−13.0	−14.5	−15.7	−14.5	−14.99	−17.8	−12.6	5.2
7	−15.3	−14.0	−15.4	−15.4	−16.0	−14.6	−14.6	−13.2	−16.8	−18.5	−20.3	−18.9	−16.08	−20.3	−13.2	7.1
8	−21.7	−23.3	−23.5	−23.5	−22.6	−21.1	−19.7	−18.9	−18.9	−17.5	−17.4	−16.9	−20.42	−28.8	−16.8	12.0
9	−16.9	−15.9	−16.9	−19.7	−19.9	−19.5	−19.3	−20.7	−19.9	−20.5	−19.6	−19.3	−19.01	−20.7	−15.5	5.2
10	−20.1	−18.9	−19.9	−19.9	−20.2	−20.0	−19.6	−20.9	−20.7	−21.3	−20.2	−19.5	−20.10	−21.4	−18.5	2.9
11	−19.0	−17.9	−19.1	−18.7	−18.3	−19.5	−18.9	−17.9	−17.9	−17.5	−17.3	−16.8	−18.23	−20.2	−16.7	3.5
12	−16.5	−15.7	−16.2	−16.3	−16.2	−16.3	−16.7	−16.1	−15.8	−15.9	−16.3	−17.5	−16.29	−17.5	−15.5	2.0
13	−17.1	−17.4	−18.5	−19.0	−19.3	−18.7	−18.3	−19.2	−19.1	−18.8	18.4	−18.6	−18.53	−19.3	−15.2	4.1
14	−18.8	−18.5	−17.7	−18.9	−18.5	−18.1	−18.2	−18.1	−17.9	−17.6	−17.7	−17.5	−18.13	−19.0	−17.4	1.6
15	−16.8	−16.4	−16.2	−15.2	−16.4	−16.1	−16.1	−16.3	−17.4	−18.3	−19.0	−21.2	−17.12	−21.2	−15.1	6.1
16	−21.5	−22.9	−22.7	−22.1	−20.9	−20.2	−19.7	−18.9	−18.0	−17.1	−15.7	−14.8	−19.54	−22.9	−14.4	8.5
17	−14.8	−14.8	−14.4	−14.3	−14.1	−13.9	−13.9	−14.1	−14.1	−14.3	−15.0	−15.8	−14.46	−15.8	−13.8	2.0
18	−16.1	−16.1	−16.3	−17.1	−17.2	−16.9	−17.0	−18.4	−19.7	−21.1	−20.1	−20.6	−18.05	−21.1	−14.0	7.1
19	−22.1	−22.9	−23.3	−23.7	−24.1	−21.6	−20.1	−21.1	−19.4	−22.5	−21.3	−21.6	−21.98	−24.1	−18.8	5.3
20	−22.1	−22.1	−22.4	−22.2	−22.8	−22.4	−22.5	−23.8	−23.8	−23.5	−23.9	−23.3	−22.90	−23.9	−20.5	3.4
21	−23.4	−24.0	−24.4	−25.1	−24.7	−25.3	−24.8	−24.6	−25.6	−24.9	−24.5	−23.7	−24.58	−25.6	−22.5	3.1
22	−24.9	−25.2	−26.3	−27.1	−26.5	−26.4	−27.7	−27.9	−28.8	−28.4	−28.3	−28.7	−27.18	−28.8	−23.3	5.5
23	−27.3	−27.7	−28.3	−28.3	−27.8	−26.7	−26.6	−24.7	−26.9	−27.8	−29.0	−28.8	−27.49	−29.8	−24.6	5.2
24	−29.6	−28.3	−26.3	−25.7	−25.3	−25.5	−26.5	−26.5	−27.3	−27.5	−27.7	−26.5	−26.89	−29.8	−24.5	5.3
25	−26.1	−25.6	−24.9	−24.8	−24.3	−24.5	−23.9	−25.0	−25.0	−23.7	−23.8	−24.2	−24.65	**−30.9**	−23.4	7.5
26	−23.7	−24.1	−24.5	−24.6	−24.6	−24.9	−25.0	−26.5	−26.7	−25.6	−25.9	−24.8	−25.08	−26.7	−23.2	3.5
27	−23.7	−23.3	−22.9	−23.2	−23.0	−24.4	−24.9	−24.3	−24.5	−24.1	−24.5	−24.7	−23.96	−24.9	−22.5	2.4
28	−24.7	−24.3	−23.9	−23.9	−22.8	−22.5	−22.5	−22.6	−23.1	−22.7	−23.3	−22.9	−23.27	−24.7	−22.4	2.3
29	−24.5	−25.3	−25.5	−25.5	−25.7	−24.7	−20.3	−14.1	−12.5	−11.6	−13.3	−13.3	−19.69	−25.7	−11.3	14.4
30	−12.6	−11.7	−11.7	−11.0	−11.7	−11.9	−11.5	−13.9	−13.8	−15.1	−15.0	−19.1	−13.25	−19.1	**−10.9**	8.2
31	−20.0	−20.4	−21.2	−23.0	−23.5	−24.2	−23.9	−24.1	−24.2	−24.5	−24.6	−24.1	−23.14	−24.6	−14.5	10.1
Mean	−19.90	−19.76	−20.03	−20.25	−20.12	−19.84	−19.60	−19.62	−19.85	−20.09	−20.14	−20.08	−19.94	−22.5	−17.1	5.4

1901. November.

Gaasefjord. $\varphi = 76° 40' N.$ $\lambda = 88° 38' W.$ $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−24.1	−23.6	−24.5	−23.4	−25.0	−25.7	−24.1	−23.6	−24.5	−25.3	−26.5	−27.5	−24.98	−27.5	−22.7	4.8
2	−27.3	−26.5	−24.7	−22.9	−22.5	−22.9	−23.7	−24.3	−26.0	−27.1	−25.5	−26.3	−24.98	−27.3	−22.0	5.3
3	−24.4	−21.7	−23.8	−23.4	−23.3	−22.7	−22.5	−22.2	−20.7	−21.9	−21.9	−22.5	−22.58	−26.9	−20.7	6.2
4	−24.1	−24.5	−24.4	−26.3	−28.1	−30.0	−30.3	−25.9	−25.1	−23.8	−24.1	−22.7	−25.78	−30.3	−22.6	7.7
5	−24.9	−26.1	−25.9	−26.3	−23.6	−24.5	−24.3	−25.1	−23.5	−23.2	−24.5	−24.7	−24.72	−26.3	−23.1	3.2
6	−24.4	−24.3	−22.3	−21.2	−20.1	−19.1	−18.8	−17.9	−17.4	−17.1	−16.8	−19.6	−19.92	−24.4	−16.7	7.7
7	−18.1	−19.2	−18.1	−17.2	−17.5	−16.6	−17.6	−17.9	−19.0	−18.7	−20.2	−20.6	−19.23	−20.6	−16.5	4.1
8	−20.3	−20.8	−21.6	−21.4	−22.1	−20.6	−19.1	−20.3	−19.9	−19.9	−19.5	−18.8	−20.36	−22.2	−18.7	3.5
9	−17.9	−17.5	−17.4	−19.5	−17.5	−18.6	−22.1	−22.3	−24.6	−26.1	−25.4	−23.8	−21.07	−26.1	−17.3	8.8
10	−22.6	−12.9	−12.7	−12.3	−13.4	−11.7	−15.4	−16.3	−18.0	−18.3	−17.5	−15.6	−15.56	−22.8	−11.7	11.1
11	−17.3	−18.1	−19.3	−18.5	−18.5	−17.8	−11.7	−11.0	−10.5	−11.7	−11.9	−12.4	−14.89	−19.3	−10.3	9.0
12	−13.6	−12.7	−11.7	−12.0	−11.0	−10.3	− 9.9	−10.5	−10.4	− 9.1	− 8.8	− 8.3	−10.69	−18.8	− 8.3	10.5
13	− 9.2	− 8.0	−11.9	−16.3	−19.1	−21.4	−22.2	−22.1	−21.4	−20.7	−20.8	−20.5	−17.80	−22.6	− **8.0**	14.6
14	−20.9	−21.6	−21.5	−22.5	−23.9	−25.0	−26.3	−26.3	−27.5	−26.9	−28.3	−28.2	−24.91	−28.3	−20.5	7.8
15	−25.1	−24.3	−24.3	−23.9	−24.1	−25.0	−24.3	−23.7	−23.5	−23.8	−25.3	−25.7	−24.42	−25.7	−23.3	2.4
16	−26.0	−23.9	−23.5	−24.1	−23.7	−22.7	−23.0	−23.4	−22.8	−21.3	−20.4	−18.2	−22.75	−26.0	−14.0	12.0
17	−14.1	−15.1	−15.5	−14.9	−14.1	−13.6	−13.6	−14.4	−14.4	−14.1	−15.8	−16.3	−14.66	−16.3	−13.2	3.1
18	−17.3	−17.4	−17.3	−17.6	−17.7	−17.9	−18.5	−18.4	−18.9	−19.9	−21.2	−21.5	−18.63	−21.5	−14.1	7.4
19	−22.6	−23.4	−23.8	−25.4	−25.4	−25.4	−25.4	−26.1	−25.7	−26.7	−26.1	−26.8	−25.23	−26.8	−19.5	7.3
20	−27.9	−27.9	−26.4	−25.5	−28.2	−27.6	−29.1	−30.8	−32.5	−33.4	−32.8	−32.4	−29.54	−33.4	−25.4	8.0
21	−31.8	−31.6	−28.8	−30.3	−30.4	−30.5	−30.2	−30.2	−30.8	−30.3	−29.1	−29.3	−30.28	−33.7	−27.9	5.8
22	−30.2	−31.8	−32.2	−32.7	−33.0	−33.6	−33.2	−33.6	−34.0	−34.8	−34.8	−35.4	−33.28	−**35.4**	−27.9	7.5
23	−35.0	−35.0	−35.2	−35.0	−34.8	−35.2	−35.2	−35.0	−35.0	−34.2	−34.0	−33.8	−34.78	−35.2	−33.8	1.4
24	−32.5	−32.5	−32.2	−31.8	−32.3	−32.9	−32.5	−33.1	−33.0	−33.0	−33.0	−32.8	−32.63	−33.1	−31.8	1.3
25	−33.0	−34.0	−33.5	−33.2	−33.9	−34.3	−33.5	−31.2	−32.0	−32.2	−33.0	−32.8	−33.05	−34.3	−30.8	3.5
26	−33.0	−32.8	−33.2	−33.1	−33.1	−33.3	−33.2	−31.7	−30.8	−31.5	−31.3	−31.2	−32.35	−33.5	−30.8	2.7
27	−32.1	−32.0	−30.0	−29.3	−29.1	−29.5	−29.8	−31.0	−31.4	−31.8	−32.5	−33.6	−31.01	−33.6	−28.7	4.9
28	−34.2	−34.5	−34.5	−33.0	−32.0	−30.8	−32.0	−32.5	−34.0	−34.5	−33.2	−32.4	−33.13	−34.5	−30.8	3.7
29	−34.4	−33.3	−32.8	−33.2	−32.4	−31.9	−31.4	−32.0	−32.5	−29.6	−30.7	−30.9	−32.09	−35.3	−29.6	5.7
30	−31.0	−29.5	−29.5	−29.0	−29.8	−32.0	−33.2	−34.0	−34.1	−34.1	−34.3	−34.6	−32.09	−34.6	−28.7	5.9
Mean	−24.98	−24.55	−24.42	−24.51	−24.65	−24.77	−24.87	−24.90	−25.13	−25.17	−25.31	−25.31	−24.89	−27.9	−21.7	6.2

1901. December.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−34.5	−34.4	−33.8	−32.9	−33.3	−33.6	−33.2	−33.3	−33.0	−32.9	−31.8	−30.6	−33.11	−35.0	−30.6	4.4
2	−30.4	−30.1	−28.2	−29.4	−28.9	−29.6	−28.6	−28.9	−29.0	−28.9	−29.0	−30.0	−29.25	−33.5	−27.8	5.7
3	−31.2	−31.8	−32.0	−32.2	−33.3	−33.8	−34.2	−33.5	−32.6	−33.0	−34.5	−35.2	−33.11	−35.2	−29.0	6.2
4	−36.4	−37.3	−37.5	−36.5	−36.0	−34.0	−32.3	−29.6	−28.7	−28.0	−27.9	−27.7	−32.66	**−37.7**	−27.7	10.0
5	−27.5	−27.3	−27.3	−27.0	−26.3	−26.0	−25.0	−26.0	−25.2	−25.5	−27.0	−26.8	−26.41	−27.6	−25.0	2.6
6	−26.8	−27.0	−27.8	−27.7	−28.3	−27.8	−26.0	−25.5	−25.0	−23.8	−23.7	−24.3	−26.14	−28.5	−23.3	5.2
7	−24.0	−23.5	−23.5	−23.6	−23.7	−23.2	−23.2	−22.2	−21.8	−27.0	−29.0	−31.6	−24.69	−31.6	−20.7	10.9
8	−32.5	−33.2	−33.9	−33.0	−32.2	−30.2	−29.1	−29.7	−31.0	−32.2	−33.0	−33.4	−31.95	−34.5	−28.0	6.5
9	−33.5	−32.3	−33.0	−32.2	−29.6	−25.8	−26.6	−26.0	−26.4	−25.7	−25.3	−26.3	−28.56	−34.4	−25.0	9.4
10	−27.8	−26.8	−26.5	−26.3	−23.0	−23.0	−23.7	−22.7	−22.0	−21.7	−20.0	−18.6	−23.51	−27.8	**−18.6**	9.2
11	−19.0	−19.5	−20.2	−21.3	−24.3	−24.1	−22.3	−23.2	−22.8	−23.3	−23.9	−21.9	−22.15	−24.6	−19.0	5.6
12	−24.0	−26.2	−25.3	−26.1	−31.6	−30.0	−30.7	−29.9	−29.8	−31.2	−31.0	−31.8	−28.97	−31.8	−21.3	10.5
13	−32.4	−33.4	−33.9	−33.0	−34.0	−34.0	−33.2	−33.0	−34.0	−31.8	−32.0	−32.9	−33.13	−34.2	−32.0	2.2
14	−33.7	−34.6	−34.4	−34.0	−33.8	−33.3	−32.4	−31.1	−29.5	−26.0	−28.6	−31.5	−31.91	−35.0	−26.0	9.0
15	−31.6	−31.0	−29.4	−29.2	−31.2	−32.1	−31.0	−29.7	−27.8	−27.1	−27.0	−28.4	−29.63	−32.1	−27.0	5.1
16	−28.3	−27.3	−27.0	−26.9	−24.0	−23.3	−22.9	−23.1	−22.8	−22.4	−22.2	−22.2	−24.37	−29.1	−22.2	6.9
17	−22.1	−22.4	−22.5	−23.8	−23.8	−24.8	−25.0	−25.0	−26.0	−25.3	−25.0	−26.3	−24.33	−26.3	−22.1	4.2
18	−28.3	−30.8	−30.8	−31.2	−32.5	−32.2	−30.8	−31.2	−31.0	−31.8	−32.2	−32.6	−31.28	−32.6	−25.2	7.4
19	−33.0	−32.8	−33.5	−34.0	−34.4	−33.2	−32.8	−33.9	−34.2	−33.2	−32.3	−32.0	−33.28	−34.8	−31.8	3.0
20	−32.4	−33.2	−34.0	−33.6	−34.0	−33.8	−32.9	−31.9	−32.0	−33.2	−34.0	−34.5	−33.29	−34.5	−31.5	3.0
21	−34.0	−33.5	−32.6	−32.0	−32.4	−32.9	−33.8	−33.8	−33.3	−34.0	−34.8	−35.5	−33.55	−35.5	−32.0	3.5
22	−35.7	−36.2	−36.8	−37.2	−36.3	−36.8	−36.3	−36.0	−35.0	−33.8	−33.3	−34.2	−35.63	−37.2	−33.3	3.9
23	−33.0	−33.1	−32.0	−31.8	−30.2	−30.1	−30.1	−30.2	−29.5	−29.0	−29.0	−30.1	−30.68	−33.1	−29.0	4.1
24	−30.0	−29.5	−25.5	−27.8	−28.0	−27.1	−25.8	−28.4	−29.9	−30.3	−28.7	−28.3	−28.28	−31.1	−25.5	5.6
25	−27.8	−26.8	−27.4	−24.6	−25.8	−26.9	−27.9	−27.9	−27.2	−28.2	−29.2	−30.0	−27.48	−30.0	−24.6	5.4
26	−29.7	−29.0	−29.7	−29.2	−30.3	−32.0	−33.0	−33.5	−33.5	−35.5	−35.2	−36.0	−32.22	−36.0	−28.5	7.5
27	−35.5	−35.5	−36.0	−36.0	−34.8	−34.9	−34.3	−33.7	−33.0	−32.0	−27.0	−26.6	−33.28	−36.8	−26.2	10.6
28	−26.2	−26.4	−26.2	−27.5	−28.0	−28.8	−28.8	−26.5	−25.8	−25.0	−24.0	−23.5	−26.39	−28.8	−23.5	5.3
29	−23.2	−25.4	−28.4	−29.0	−31.0	−33.2	−34.6	−35.0	−35.0	−34.9	−35.0	−35.8	−31.71	−35.8	−23.2	12.6
30	−35.0	−36.8	−36.0	−36.0	−36.2	−36.3	−34.8	−32.2	−32.0	−30.9	−30.9	−31.0	−34.01	−36.8	−30.5	6.3
31	−31.1	−31.8	−31.4	−32.0	−32.2	−31.8	−32.0	−31.9	−32.0	−31.9	−31.8	−31.9	−31.82	−32.8	−30.7	2.1
Mean	−30.02	−30.29	−30.21	−30.23	−30.43	−30.29	−29.91	−29.63	−29.38	−29.34	−29.30	−29.73	−29.90	−32.7	−26.5	6.2

1902. January.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−35.5	−33.0	−33.5	−33.8	−34.1	−34.9	−34.0	−34.3	−35.2	−34.7	−34.6	−34.5	−34.34	−36.3	−31.8	4.5
2	−35.1	−35.8	−36.2	−36.5	−37.7	−38.0	−37.2	−37.5	−37.5	−39.0	−39.7	−40.1	−37.53	−40.1	−34.2	5.9
3	−40.8	−41.5	−42.0	−41.5	−40.8	−40.2	−40.3	−39.5	−39.8	−40.0	−39.8	−40.0	−40.52	−42.0	−39.5	2.5
4	−40.3	−40.4	−40.5	−40.0	−41.0	−40.9	−41.0	−42.0	−42.0	−42.2	−42.2	−42.2	−41.23	−42.2	−40.0	2.2
5	−42.2	−42.6	−42.0	−40.8	−41.2	−40.8	−41.0	−40.8	−40.8	−40.4	−39.8	−39.5	−40.99	**−43.0**	−39.5	3.5
6	−39.0	−39.4	−39.3	−39.6	−39.0	−38.7	−38.0	−39.0	−39.0	−39.0	−39.8	−39.0	−39.07	−40.7	−38.0	2.7
7	−39.4	−40.0	−40.0	−41.0	−40.7	−40.2	−40.1	−39.2	−39.0	−39.0	−39.3	−39.0	−39.74	−41.0	−36.0	5.0
8	−37.5	−38.0	−38.1	−35.9	−37.3	−38.2	−39.3	−38.2	−37.9	−38.0	−37.2	−36.2	−37.65	−42.3	−35.9	6.4
9	−36.5	−33.9	−33.1	−33.3	−34.1	−33.8	−36.3	−38.0	−38.0	−38.5	−38.5	−39.0	−36.08	−39.0	−32.3	6.7
10	−39.7	−39.3	−38.2	−38.5	−38.4	−37.9	−37.4	−37.0	−34.8	−35.1	−34.7	−34.3	−37.11	−39.9	−34.3	5.6
11	−34.0	−35.1	−36.2	−37.0	−37.2	−37.0	−36.0	−33.8	−32.9	−34.8	−31.0	−32.2	−34.77	−37.2	−31.0	6.2
12	−32.0	−31.5	−31.5	−32.7	−34.0	−33.0	−31.7	−36.0	−36.4	−37.0	−36.0	−35.4	−33.93	−37.3	−30.2	7.1
13	−32.5	−35.8	−36.4	−36.9	−38.3	−38.2	−36.7	−38.5	−38.8	−37.2	−37.7	−36.0	−36.92	−38.8	−32.5	6.3
14	−36.1	−35.2	−35.5	−34.3	−34.7	−35.2	−35.2	−35.9	−38.8	−36.3	−36.3	−35.2	−35.73	−40.0	−33.9	6.1
15	−34.2	−33.5	−36.0	−35.9	−36.1	−36.4	−37.4	−38.1	−38.8	−38.3	−38.9	−39.3	−36.91	−39.3	−33.5	5.8
16	−39.0	−38.2	−37.8	−35.7	−35.4	−35.7	−36.3	−35.8	−35.0	−34.5	−34.2	−34.2	−35.98	−39.5	−34.2	5.3
17	−33.3	−34.0	−35.2	−34.8	−34.8	−34.2	−34.0	−32.6	−31.8	−30.4	−31.2	−31.0	−33.11	−36.0	−30.4	5.6
18	−30.4	−30.2	−29.6	−31.8	−34.0	−34.8	−34.1	−34.9	−34.0	−36.3	−35.8	−36.2	−33.51	−36.3	−29.6	6.7
19	−36.8	−36.1	−37.2	−37.0	−37.0	−38.0	−38.0	−37.8	−38.0	−37.8	−38.0	−38.0	−37.48	−38.6	−35.0	3.6
20	−38.0	−38.0	−37.8	−37.1	−37.8	−38.2	−37.7	−38.7	−38.1	−38.0	−36.5	−38.2	−37.84	−38.7	−36.5	2.2
21	−38.0	−37.9	−37.0	−38.0	−38.3	−38.0	−38.0	−39.6	−39.7	−39.6	−38.9	−39.5	−38.54	−39.8	−37.0	2.8
22	−40.0	−40.1	−40.0	−40.0	−40.3	−40.5	−41.1	−41.3	−41.4	−41.3	−41.0	−40.9	−40.66	−41.6	−40.0	1.6
23	−41.2	−41.3	−41.0	−42.3	−42.4	−42.1	−42.1	−42.1	−42.1	−42.1	−42.1	−42.1	−41.91	−42.5	−41.0	1.5
24	−42.1	−42.3	−40.5	−38.2	−38.2	−38.2	−39.0	−39.0	−38.5	−37.8	−37.0	−38.2	−39.08	−42.3	−32.0	10.3
25	−37.0	−35.7	−32.7	−32.5	−31.1	−33.1	−34.2	−34.5	−36.2	−35.2	−32.2	−33.0	−33.95	−37.0	−30.8	6.2
26	−32.4	−35.0	−32.5	−35.8	−32.0	−29.7	−32.7	−34.7	−35.2	−35.2	−35.8	−33.9	−33.74	−36.7	−27.0	9.7
27	−30.0	−31.8	−28.7	−27.0	−28.0	−26.6	−25.2	−28.2	−30.2	−31.2	−31.2	−32.0	−29.18	−32.0	**−24.8**	7.2
28	−33.5	−32.2	−33.5	−34.3	−34.5	−33.4	−30.8	−31.4	−29.9	−30.6	−31.3	−30.3	−32.14	−34.5	−29.9	4.6
29	−31.3	−29.8	−28.0	−30.0	−27.2	−28.3	−28.8	−28.0	−28.0	−28.0	−27.3	−29.2	−28.66	−31.3	−27.2	4.1
30	−29.4	−31.4	−29.8	−32.4	−31.7	−30.3	−30.0	−32.5	−33.1	−33.7	−33.3	−32.0	−31.63	−35.2	−27.6	7.6
31	−32.0	−32.2	−33.0	−32.2	−35.1	−35.5	−36.1	−37.0	−34.6	−33.8	−33.0	−32.0	−33.88	−37.9	−31.7	6.2
Mean	−36.10	−36.16	−35.90	−36.03	−36.21	−36.13	−36.12	−36.64	−36.63	−36.61	−36.27	−36.21	−36.25	−38.7	−33.5	5.2

1902 February.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−30.0	−31.0	−31.1	−31.3	−31.8	−32.0	−33.5	−34.0	−34.4	−33.5	−34.2	−34.4	−32.60	−34.4	−29.5	4.9
2	−34.3	−33.9	−33.3	−34.5	−33.0	−34.1	−34.5	−32.2	−34.0	−33.4	−32.8	−32.0	−33.50	−35.1	−31.4	3.7
3	−33.2	−32.6	−32.0	−31.3	−32.8	−34.0	−34.0	−35.0	−34.9	−35.0	−35.8	−35.6	−33.85	−35.9	−31.3	4.6
4	−35.0	−35.8	−36.8	−35.3	−36.3	−36.0	−36.0	−36.7	−36.6	−36.8	−36.0	−36.0	−36.11	−37.1	−34.8	2.3
5	−36.3	−36.0	−35.2	−36.4	−36.8	−35.7	−36.0	−35.0	−32.0	−31.0	−30.0	−30.2	−34.22	−36.9	−30.0	6.9
6	−30.2	−30.1	−30.0	−30.0	−31.3	−32.0	−32.6	−30.3	−31.2	−32.8	−32.3	−31.0	−31.15	−34.6	−30.0	4.6
7	−31.2	−30.5	−31.0	−30.9	−29.8	−29.2	−26.7	−27.1	−26.6	−21.2	−23.2	−23.3	−27.56	−32.9	−21.2	11.7
8	−23.0	−19.8	−16.9	−17.3	−17.9	−18.5	−17.8	−17.0	−17.8	−18.0	−18.0	−18.4	−18.37	−24.1	−16.8	7.3
9	−18.9	−17.9	−18.5	−18.8	−15.0	−13.0	−13.0	−17.8	−17.5	−17.3	−17.9	−18.3	−16.99	−20.0	**−12.5**	7.5
10	−17.0	*−17.0*	−17.0	−16.8	−17.0	−18.2	−19.0	−18.8	−20.2	−20.7	−19.6	−18.4	−18.31	−21.0	−14.9	6.1
11	−17.2	−16.8	−16.7	−17.2	−17.0	−17.0	−17.1	−16.9	−17.5	−17.7	−17.0	−17.8	−17.16	−17.8	−16.7	1.1
12	−18.6	−19.7	−19.8	−20.0	−19.9	−19.7	−20.4	−21.5	−22.8	−22.8	−22.7	−23.0	−20.91	−23.0	−17.3	5.7
13	−25.0	−23.9	−23.0	−21.2	−22.5	−23.2	−23.2	−24.0	−24.0	−24.0	−26.0	−28.0	−24.00	−28.0	−21.2	6.8
14	−28.5	−29.1	−30.3	−31.3	−32.9	−32.0	−32.6	−33.1	−32.7	−33.0	−30.3	−31.6	−31.45	−34.2	−24.5	9.7
15	−28.0	−30.3	−28.0	−26.7	−26.5	−27.0	−27.2	−27.6	−27.9	−27.0	−27.3	−28.9	−27.70	−32.5	−26.5	6.0
16	−31.2	−31.9	−33.4	−34.9	−37.2	−37.3	−38.0	−38.8	−38.0	−38.2	−39.0	−39.4	−36.44	−39.4	−27.3	12.1
17	−39.0	−39.0	−38.5	−38.8	−39.0	−38.0	−38.0	−39.1	−39.0	−40.5	−40.2	−40.3	−39.12	−40.5	−38.0	2.5
18	−41.1	−40.6	−41.1	−40.0	−39.2	−41.8	−42.0	−42.7	−42.2	−41.9	−41.9	−41.8	−41.36	**−42.7**	−39.2	3.5
19	−41.3	−40.6	−40.9	−40.5	−40.7	−40.7	−40.0	−39.8	−40.0	−40.1	−39.7	−38.9	−40.27	−42.1	−38.9	3.2
20	−39.0	−38.4	−38.7	−38.2	−37.8	−36.7	−36.0	−35.2	−34.8	−34.8	−35.9	*−36.0*	−36.79	−39.0	−34.0	5.0
21	−36.0	−35.6	−33.8	−30.0	−28.5	−29.0	−29.5	−29.0	−27.8	−26.5	−26.8	−25.0	−29.79	−36.0	−25.0	11.0
22	−25.0	−24.3	−22.7	−23.8	−21.6	−21.0	−20.8	−18.9	−20.0	−19.8	−20.3	−20.6	−21.57	−26.9	−18.3	8.6
23	−21.2	−22.0	−22.0	−21.3	−20.0	−19.8	−20.8	−20.2	−21.0	−21.8	−25.0	−17.7	−21.07	−25.8	−17.7	8.1
24	−19.9	−21.2	−24.2	−25.3	−25.3	−27.4	−25.5	−26.4	−27.6	−28.0	−28.5	−29.0	−25.68	−29.0	−18.1	10.9
25	−27.5	−27.6	−28.0	−28.8	−26.3	−28.6	−26.0	−23.3	−28.6	−28.2	−30.0	−31.6	−27.88	−31.6	−23.3	8.3
26	−32.2	−31.3	−32.2	−32.0	−31.0	−30.2	−31.0	−32.0	−33.5	−34.7	−34.7	−35.0	−32.48	−35.0	−29.8	5.2
27	−35.5	−35.5	−36.7	−37.0	−37.2	−36.0	−36.3	−37.1	−37.0	−35.7	−34.2	−33.0	−35.93	−37.4	−33.0	4.4
28	−33.7	−34.6	−34.7	−35.0	−34.6	−34.2	−32.8	−32.5	−31.1	−33.0	−32.2	−31.9	−33.36	−35.7	−30.9	4.8
Mean	−29.61	−29.54	−29.52	−29.45	−29.25	−29.33	−29.30	−29.36	−29.66	−29.55	−29.69	−29.54	−29.48	−32.4	−26.1	6.3

1902. March.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−32.5	−34.0	−34.2	−34.8	−36.1	−36.0	−36.2	−38.5	−39.0	−39.5	−40.0	−39.9	−36.73	−40.1	−32.3	7.8
2	−40.0	−39.8	−39.8	−38.9	−38.2	−34.8	−35.0	−36.2	−35.1	−35.0	−34.1	−35.0	−36.83	−40.1	−34.1	6.0
3	−35.1	−36.7	−36.6	−37.4	−37.3	−37.0	−37.3	−37.0	−36.0	−36.2	−36.4	−35.4	−36.53	−37.8	−35.1	2.7
4	−36.0	−36.4	−37.0	−38.2	−38.0	−38.3	−38.1	−39.0	−39.6	−40.8	−41.0	−41.8	−38.68	−41.8	−36.0	5.8
5	−42.0	−41.2	−42.2	−42.3	−40.7	−39.8	−39.2	−39.0	−38.3	−38.2	−39.0	−39.0	−40.08	−42.3	−38.2	4.1
6	−39.3	−39.5	−38.8	−38.8	−38.0	−37.0	−35.0	−38.2	−39.2	−40.0	−41.2	−41.3	−38.86	−41.3	−35.0	6.3
7	−41.0	−41.0	−42.2	−43.1	−41.5	−40.2	−39.2	−38.8	−37.3	−37.1	−37.9	−37.8	−39.76	−43.1	−37.1	6.0
8	−37.9	−36.7	−37.2	−37.8	−38.2	−35.9	−36.2	−37.3	−36.1	−36.0	−35.8	−35.8	−36.74	−38.7	−35.8	2.9
9	−36.0	−36.6	−37.0	−37.2	−37.1	−37.0	−37.0	−38.2	−40.1	−40.0	−39.7	−40.0	−37.99	−40.2	−36.0	4.2
10	−40.9	−40.9	−41.3	−41.5	−39.9	−40.0	−38.9	−38.3	−41.8	−42.0	−41.3	−41.9	−40.73	−42.0	−38.3	3.7
11	−43.0	−43.1	−42.8	−42.5	−39.8	−39.3	−38.0	−39.9	−41.7	−42.8	−42.0	−42.7	−41.47	−43.3	−38.0	5.3
12	−42.1	−43.0	−43.2	−43.8	−41.4	−40.9	−41.2	−41.1	−41.7	−42.0	−43.0	−42.0	−42.12	−43.8	−40.9	2.9
13	−42.5	−42.3	−42.7	−43.0	−42.0	−41.0	−41.3	−41.2	−42.3	−42.0	−41.8	−42.0	−42.01	−43.3	−41.0	2.3
14	−42.1	−41.3	−40.8	−40.1	−38.9	−37.5	−34.3	−34.4	−35.6	−36.1	−37.2	−38.5	−38.07	−43.0	−33.9	9.1
15	−38.9	−41.1	−41.5	−41.3	−41.3	−40.5	−40.7	−40.9	−42.7	−43.0	−41.2	−40.4	−41.13	−43.0	−38.9	4.1
16	−40.0	−40.3	−39.9	−40.3	−39.9	−40.8	−39.7	−41.0	−40.7	−40.2	−41.0	−42.0	−40.48	−42.0	−39.7	2.3
17	−42.8	−42.5	−42.0	−41.0	−41.0	−41.8	−41.7	−42.6	−42.8	−44.1	−44.2	−43.8	−42.53	−44.2	−41.0	3.2
18	−43.2	−44.9	−44.8	−44.0	−43.1	−42.3	−41.7	−41.0	−40.7	−40.3	−40.0	−39.2	−42.10	44.9	−39.2	5.7
19	−38.3	−37.8	−37.0	−36.3	−36.0	−34.9	−34.8	−34.0	−33.7	−32.1	−31.8	−32.5	−34.93	−40.6	−31.3	9.3
20	−32.0	−31.2	−31.8	−31.5	−31.2	−29.6	−29.9	−29.2	−28.9	−28.5	−28.2	−27.4	−29.95	−33.5	−27.4	6.1
21	−26.8	−26.5	−26.2	−25.9	−25.3	−25.3	−26.8	−28.8	−31.0	−32.3	−34.6	−35.0	−28.71	−35.0	−25.3	9.7
22	−35.3	−34.9	−36.1	−37.0	−34.0	−33.4	−32.8	−33.8	−34.0	−33.6	−34.0	−31.5	−34.20	−37.2	−31.5	5.7
23	−32.0	−21.7	−21.2	−21.0	−21.2	−21.0	−20.9	−20.5	−20.4	−19.6	−18.0	−18.6	−21.34	−35.3	−17.8	17.5
24	−18.2	−18.8	−17.6	−18.0	−16.6	−17.0	−15.7	−16.5	−15.4	−14.9	−16.5	−17.5	−16.89	−20.1	−14.5	5.6
25	−17.6	−17.4	−17.7	−18.3	−18.1	−16.9	−15.4	−15.9	−17.9	−17.3	−16.7	−15.5	−17.06	−23.4	−15.0	8.4
26	−16.8	−15.6	−17.4	−16.0	−16.3	−15.7	−16.1	−16.6	−17.1	−18.1	−18.0	−18.4	−16.84	−18.4	−14.9	3.5
27	−18.7	−19.1	−19.3	−20.5	−20.3	−17.9	−18.3	−20.6	−22.0	−25.1	−26.8	−28.9	−21.46	−28.9	−17.8	11.1
28	−29.0	−29.9	−31.6	−31.0	−30.6	−31.2	−30.4	−31.2	−31.4	−30.4	−31.5	−31.8	−30.83	−31.8	−24.8	7.0
29	−31.5	−31.0	−31.6	−31.1	−29.2	−29.0	−27.7	−27.7	−29.0	−30.9	−31.9	−32.4	−30.25	−32.4	−27.6	4.8
30	−32.0	−31.3	−34.0	−34.4	−32.3	−32.0	−32.9	−32.9	−33.4	−34.5	−35.1	−35.9	−33.39	−35.9	−31.3	4.6
31	−35.8	−35.2	−33.2	−31.8	−30.8	−29.7	−27.1	−27.7	−26.5	−26.1	−27.4	−29.5	−30.07	−35.8	−26.1	9.7
Mean	−34.82	−34.57	−34.80	−34.80	−34.01	−33.35	−32.89	−33.48	−33.92	−34.15	−34.43	−34.63	−34.15	−37.5	−31.6	5.9

1902. April.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−30.4	−31.2	−32.2	−32.7	−31.2	−30.2	−28.9	−29.7	−31.0	−32.7	−33.7	−34.0	−31.49	−34.0	−27.6	6.4
2	−34.3	−33.1	−32.6	−31.6	−32.0	−29.6	−31.6	−32.8	−34.9	−34.1	−34.6	−33.6	−32.89	−34.9	−28.8	6.1
3	−33.2	−33.7	−34.6	−32.5	−33.0	−31.1	−32.0	−33.1	−34.2	−35.2	−33.4	−33.1	−33.26	−35.2	−28.9	6.3
4	−33.8	−35.2	−35.6	−34.7	−31.9	−30.4	−29.6	−31.8	−32.0	−33.5	−33.4	−34.4	−33.03	−**35.7**	−29.4	6.3
5	−34.5	−34.4	−35.2	−33.3	−32.2	−31.6	−31.6	−31.7	−30.6	−30.7	−30.2	−28.6	−32.05	−35.5	−28.5	7.0
6	−29.1	−28.8	−29.2	−29.5	−28.5	−27.0	−26.9	−27.2	−28.4	−30.0	−31.7	−33.2	−29.13	−33.2	−26.6	6.6
7	−34.4	−33.6	−31.2	−29.3	−27.0	−27.3	−27.3	−27.4	−27.4	−27.4	−28.6	−29.5	−29.20	−34.4	−26.7	7.7
8	−30.2	−29.9	−30.5	−31.4	−30.8	−29.4	−28.8	−28.3	−27.9	−28.7	−29.4	−29.1	−29.53	−31.4	−27.8	3.6
9	−29.4	−30.9	−28.4	−28.4	−29.1	−28.5	−29.0	−29.3	−29.7	−29.3	−30.3	−31.2	−29.46	−31.2	−28.1	3.1
10	−30.8	−31.0	−30.9	−32.0	−30.8	−30.6	−30.0	−30.0	−29.7	−29.9	−29.9	−31.0	−30.55	−32.0	−29.5	2.5
11	−31.2	−32.3	−32.4	−30.2	−28.9	−26.3	−27.3	−27.3	−27.3	−27.0	−27.6	−28.3	−28.84	−32.4	−26.0	6.4
12	−28.6	−30.5	−31.2	−26.6	−26.5	−22.7	−23.8	−23.9	−27.4	−28.2	−30.4	−32.4	−27.68	−32.4	−22.6	9.8
13	−32.0	−32.0	−31.6	−29.6	−26.7	−25.5	−24.5	−24.4	−24.3	−27.1	−29.1	−29.0	−27.98	−33.0	−23.1	9.9
14	−28.9	−30.3	−29.8	−28.3	−27.6	−26.7	−26.1	−25.8	−25.9	−26.1	−26.5	−27.5	−27.46	−30.4	−25.4	5.0
15	−27.3	−28.3	−28.3	−24.3	−25.2	−23.1	−23.0	−22.2	−24.3	−25.0	−25.5	−25.3	−25.15	−28.3	−21.9	6.4
16	−26.9	−27.9	−25.3	−24.9	−23.5	−20.3	−17.9	−19.2	−20.7	−22.0	−23.8	−26.0	−23.20	−28.2	−17.7	10.5
17	−26.2	−25.3	−21.4	−19.5	−18.9	−19.3	−20.2	−19.7	−21.6	−23.2	−23.7	−23.1	−21.84	−26.2	−18.8	7.4
18	−24.5	−24.5	−23.2	−23.2	−22.8	−21.9	−21.6	−22.6	−24.3	−25.5	−26.5	−26.6	−23.93	−26.6	−21.5	5.1
19	−27.1	−27.4	−27.5	−26.2	−25.0	−23.4	−23.0	−22.2	−22.9	−24.0	−25.0	−25.5	−24.93	−27.9	−22.1	5.8
20	−26.3	−24.4	−23.1	−23.7	−22.1	−21.7	−20.1	−19.9	−21.3	−23.5	−25.0	−25.7	−23.07	−26.3	−18.8	7.5
21	−26.7	−26.5	−26.3	−25.3	−23.6	−23.0	−23.2	−23.2	−23.5	−23.7	−27.4	−28.1	−25.04	−28.1	−22.7	5.4
22	−30.2	−30.2	−28.9	−28.6	−24.7	−23.2	−25.5	−24.9	−24.7	−25.9	−26.5	−28.0	−26.78	−31.5	−22.9	8.6
23	−28.1	−28.5	−27.2	−25.5	−25.4	−25.5	−25.1	−25.5	−24.7	−26.0	−25.9	−25.5	−26.08	−28.9	−24.1	4.8
24	−25.1	−24.1	−22.9	−20.8	−18.5	−15.9	−13.3	−13.3	−15.4	−14.2	−16.3	−16.3	−18.01	−26.0	−12.3	13.7
25	−17.6	−17.9	−20.3	−19.9	−18.1	−16.3	−14.1	−12.7	−12.1	−14.8	−15.9	−17.0	−16.39	−20.6	−11.4	9.2
26	−17.3	−17.3	−19.1	−16.7	−13.9	−13.5	−10.8	−11.7	−12.5	−11.7	− 9.5	− 8.9	−13.58	−21.4	− 8.5	12.9
27	−11.5	−12.9	−14.2	−13.6	−13.6	−10.6	−10.0	− 9.2	− 8.7	− 8.1	−12.0	−13.0	−11.45	−14.7	− 8.0	6.7
28	−12.1	−11.4	−11.5	−11.1	−13.3	−10.7	−11.8	−12.4	−11.8	−13.7	−14.3	−14.4	−12.38	−14.4	− 8.5	5.9
29	−12.1	−12.4	−12.2	−10.3	− 9.6	− 8.3	− 5.4	− 4.3	− 4.6	− 5.3	− 9.0	−11.7	− 8.77	−15.2	− **4.3**	10.9
30	−16.1	−15.1	− 9.6	− 9.4	− 9.6	− 8.8	− 8.8	− 8.4	− 9.9	−10.9	−11.1	−11.4	−10.76	−16.1	− 8.0	8.1
Mean	−26.53	−26.70	−26.21	−25.10	−24.13	−22.74	−22.37	−22.47	−23.12	−23.91	−24.87	−25.38	−24.46	−28.2	−21.0	7.2

1902. May.

Gaasefjord. $\varphi = 76° 40' N.$ $\lambda = 88° 38' W.$ $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	−11.8	−9.4	−8.4	−8.6	−8.8	−9.0	−9.2	−9.2	−10.1	−10.4	−11.4	−13.5	−9.98	−13.5	−8.1	5.4
2	−13.3	−13.7	−10.7	−12.3	−12.9	−10.7	−9.7	−10.9	−12.8	−14.2	−13.9	−13.5	−12.38	−17.6	−8.0	9.6
3	−13.3	−16.2	−15.7	−13.5	−13.4	−13.7	−14.1	−15.0	−15.0	−17.4	−18.5	−18.7	−15.38	−18.7	−13.2	5.5
4	−18.8	−17.9	−19.4	−17.4	−15.7	−15.7	−15.1	−15.3	−15.8	−16.7	−17.5	−17.5	−16.90	−19.4	−15.0	4.4
5	−18.3	−17.8	−17.9	−18.3	−17.3	−15.5	−15.1	−14.9	−15.3	−15.5	−19.3	−18.9	−17.01	−21.9	−12.7	9.2
6	−21.0	−21.5	−19.3	−16.1	−15.5	−15.0	−13.7	−14.6	−17.1	−18.3	−19.5	−20.0	−17.63	−21.9	−13.6	8.3
7	−21.7	−22.4	−20.3	−17.9	−16.7	−15.3	−13.5	−12.3	−14.8	−16.3	−17.7	−17.1	−17.17	−**22.8**	−12.2	10.6
8	−17.1	−19.1	−17.1	−16.9	−16.8	−16.3	−15.9	−15.7	−15.5	−15.1	−14.9	−14.8	−16.27	−19.4	−13.5	5.9
9	−14.7	−15.9	−15.6	−12.9	−13.3	−12.4	−11.8	−11.5	−11.4	−11.5	−11.7	−12.5	−12.93	−15.9	−11.3	4.6
10	−12.9	−12.6	−13.7	−11.5	−12.5	−11.9	−12.3	−11.9	−12.3	−13.5	−15.1	−16.1	−13.03	−16.1	−11.4	4.7
11	−15.1	−14.6	−14.9	−14.7	−14.3	−13.6	−13.1	−12.0	−12.0	−11.5	−11.3	−11.3	−13.20	−16.7	−11.2	5.5
12	−11.4	−12.3	−10.8	−10.5	−8.0	−7.6	−6.9	−6.8	−7.2	−7.6	−7.6	−8.2	−8.74	−12.5	−6.0	6.5
13	−8.2	−10.2	−9.4	−9.8	−10.5	−11.1	−11.1	−14.0	−13.6	−14.5	−14.0	−16.1	−11.88	−16.1	−7.2	8.9
14	−16.2	−16.1	−15.5	−15.1	−14.4	−13.8	−12.1	−11.1	−12.7	−12.5	−13.0	−13.7	−13.85	−16.7	−9.7	7.0
15	−16.5	−17.3	−15.7	−14.9	−13.7	−14.5	−14.2	−14.4	−14.7	−15.5	−16.4	−15.6	−15.28	−18.3	−13.6	4.7
16	−15.1	−15.3	−14.9	−14.9	−15.1	−15.0	−15.1	−15.1	−15.3	−15.9	−16.6	−17.5	−15.48	−17.5	−14.8	2.7
17	−17.7	−16.5	−16.3	−15.1	−14.7	−13.1	−11.4	−9.7	−12.6	−13.6	−14.3	−15.7	−14.23	−18.3	−7.8	10.5
18	−12.9	−13.0	−13.3	−12.9	−11.5	−10.7	−11.1	−10.3	−10.8	−11.1	−11.1	−11.0	−11.64	−13.3	−10.2	3.1
19	−12.5	−13.3	−13.9	−14.1	−13.8	−13.3	−12.5	−12.2	−11.9	−12.3	−13.3	−14.6	−13.14	−14.6	−11.1	3.5
20	−14.7	−14.7	−14.5	−13.3	−14.3	−13.9	−12.7	−12.9	−12.7	−12.3	−13.9	−14.3	−13.68	−15.5	−12.1	3.4
21	−14.4	−14.5	−13.7	−12.6	−12.0	−11.3	−9.3	−8.8	−9.2	−9.8	−10.3	−10.7	−11.38	−15.4	−8.8	6.6
22	−12.3	−12.1	−11.8	−8.6	−7.9	−8.2	−7.2	−6.9	−5.8	−5.8	−5.8	−8.2	−8.38	−13.2	−5.0	8.2
23	−9.2	−9.1	−9.4	−7.4	−7.8	−6.8	−6.9	−5.8	−6.8	−7.7	−8.8	−8.7	−7.87	−10.9	−5.8	5.1
24	−11.6	−12.8	−11.8	−9.6	−8.2	−7.3	−6.7	−6.8	−6.1	−7.0	−8.6	−9.0	−8.79	−13.3	−4.8	8.5
25	−10.9	−9.8	−9.0	−8.5	−8.3	−9.0	−8.2	−7.5	−8.5	−9.0	−10.3	−11.3	−9.19	−11.3	−7.2	4.1
26	−11.3	−8.7	−10.2	−8.1	−8.2	−7.2	−6.8	−7.0	−7.5	−8.6	−8.2	−11.5	−8.61	−11.5	−6.6	4.9
27	−11.6	−12.4	−12.1	−7.6	−8.3	−3.4	−4.6	−4.1	−6.5	−6.1	−8.2	−7.8	−7.73	−12.4	−2.5	9.9
28	−7.0	−6.2	−5.5	−5.2	−5.0	−4.6	−4.2	−3.8	−3.8	−4.2	−4.2	−4.2	−4.83	−10.3	−3.5	6.8
29	−5.0	−5.9	−4.0	−4.6	−4.2	−0.6	−1.1	−1.2	−1.4	−3.8	−5.2	−5.0	−3.50	−6.1	0.7	6.8
30	−5.7	−4.5	−3.2	−3.5	−3.2	−2.1	−1.4	−1.8	−1.8	−1.9	−2.1	−3.1	−2.86	−6.2	**1.2**	7.4
31	−3.2	−3.2	−3.2	−2.4	−2.5	−1.5	−1.0	−0.9	−0.4	−0.9	−0.7	−2.3	−1.85	−3.2	0.2	3.4
Mean	−13.08	−13.22	−12.62	−11.57	−11.25	−10.45	−9.93	−9.82	−10.37	−10.98	−11.72	−12.34	−11.45	−14.9	−8.5	6.3

1902. June.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Min.	Max.	Range
1	−4.0	−3.6	−2.2	−0.8	−0.6	0.0	−0.6	0.2	0.7	−1.1	−0.9	−1.6	−1.21	−7.5	1.0	8.5
2	−2.2	−3.9	−3.0	−0.6	−0.2	1.1	2.9	2.3	0.6	−0.8	−0.9	−1.4	−0.51	−4.0	3.7	7.7
3	−1.8	−1.8	−1.9	−1.2	−0.8	0.5	0.8	3.0	2.3	0.7	−0.2	−0.4	−0.07	−2.0	4.9	6.9
4	−2.1	−2.4	−1.6	−1.3	−0.7	0.2	0.2	0.3	0.2	0.2	−0.3	−3.2	−0.88	−3.2	1.0	4.2
5	−3.2	−3.0	−1.8	−1.5	−0.3	−0.5	0.1	0.6	−0.4	0.0	−0.6	−0.5	−0.93	−4.2	1.8	6.0
6	−0.8	−0.4	−0.9	1.6	2.4	1.9	2.4	3.6	1.0	0.1	−0.6	1.1	0.95	−0.9	4.5	5.4
7	0.6	1.4	2.1	2.9	2.2	2.9	2.6	3.4	3.4	2.9	3.2	1.6	2.43	0.6	4.2	3.6
8	−1.0	−0.8	−0.2	0.0	1.1	2.8	2.6	1.0	0.8	0.8	0.4	0.6	0.68	−1.6	3.1	4.7
9	0.1	0.7	1.4	1.7	2.0	1.9	1.5	1.5	0.8	0.6	0.5	0.6	1.11	0.1	3.0	2.9
10	1.1	0.8	0.2	1.6	1.0	1.3	0.9	1.4	1.8	1.3	0.9	1.6	1.24	0.1	2.9	2.8
11	2.1	3.0	3.0	4.8	4.7	5.1	4.4	4.8	4.8	4.9	4.6	5.7	4.33	0.7	8.5	7.8
12	5.0	6.3	5.9	5.6	6.3	8.1	6.8	8.1	6.4	3.8	2.8	3.2	5.69	2.8	9.4	6.6
13	3.0	2.6	1.6	2.6	2.5	6.2	3.7	4.1	2.8	3.0	2.0	1.3	2.95	1.3	6.2	4.9
14	0.0	0.7	0.8	1.0	1.8	2.7	2.8	2.4	2.4	2.4	1.0	2.1	1.68	0.0	3.4	3.4
15	1.8	1.4	0.4	0.9	0.8	0.8	1.8	2.3	2.5	2.2	3.4	2.5	1.73	0.1	4.0	3.9
16	2.1	0.7	1.0	2.4	4.6	1.4	1.9	4.0	1.2	1.3	1.2	1.6	1.95	0.4	4.6	4.2
17	1.4	0.4	0.5	0.9	1.0	1.2	1.4	1.7	0.8	0.6	0.4	0.1	0.87	−0.2	2.2	2.4
18	0.0	0.2	*1.4*	2.6	1.5	2.1	2.1	2.1	1.6	1.7	3.7	1.6	1.72	0.0	4.7	4.7
19	4.1	4.3	4.1	4.3	2.2	2.5	3.0	2.7	3.0	3.2	3.0	3.7	3.34	1.7	4.7	3.0
20	3.2	4.4	3.6	4.0	4.0	5.4	2.4	4.0	5.3	4.2	2.2	2.6	3.78	2.2	5.7	3.5
21	2.3	3.0	3.7	2.6	5.2	6.3	7.9	7.0	7.3	6.4	5.5	4.9	5.18	2.2	8.9	6.7
22	5.0	5.0	4.6	5.0	4.3	4.3	4.4	4.7	5.0	5.5	5.3	4.4	4.79	4.3	5.8	1.5
23	4.4	3.8	5.1	6.0	5.8	2.5	2.8	2.3	2.5	3.7	3.2	1.7	3.65	1.7	6.2	4.5
24	2.6	2.0	1.9	1.8	3.6	2.6	2.4	1.9	1.6	2.7	2.5	2.0	2.30	1.6	4.0	2.4
25	2.5	2.6	2.6	2.9	3.9	4.3	3.6	4.7	5.2	4.8	2.8	3.7	3.63	1.0	5.5	4.5
26	3.5	3.6	4.2	4.1	5.5	4.8	5.8	5.6	4.5	3.8	2.8	3.0	4.27	2.4	6.9	4.5
27	3.5	3.0	2.8	2.9	2.4	2.3	3.8	2.6	3.7	2.6	2.8	6.0	3.20	1.2	6.0	4.8
28	4.8	4.5	4.2	4.6	4.4	4.5	4.1	5.1	5.4	3.9	3.3	4.7	4.46	3.3	7.8	4.5
29	4.5	4.6	4.9	8.3	3.4	4.2	8.4	7.4	6.4	7.4	5.4	5.8	5.89	3.4	9.1	5.7
30	3.6	4.2	3.6	6.2	6.6	5.4	6.7	7.6	10.8	11.0	9.4	10.1	7.10	3.0	**12.0**	9.0
Mean	1.54	1.58	1.77	2.53	2.69	2.96	3.12	3.41	3.15	2.79	2.29	2.30	2.51	0.4	5.2	4.8

1902. July.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W. $h = 5.5$ m. C.°

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Min.	Max.	Range
1	8.9	11.0	8.8	8.1	12.8	6.2	8.7	8.5	9.8	9.0	9.3	5.4	8.88	5.4	13.1	7.7
2	7.0	4.7	6.0	6.4	3.6	3.0	3.2	3.5	3.0	3.5	3.0	7.8	4.56	2.2	7.8	5.6
3	6.8	7.3	6.0	5.8	5.5	5.8	6.3	6.2	6.4	6.4	5.1	5.5	6.09	3.4	8.0	4.6
4	6.8	5.2	4.9	4.9	6.7	6.3	6.8	7.8	6.2	10.7	6.9	7.9	6.76	3.4	10.7	7.3
5	2.4	2.6	4.2	5.1	4.6	3.4	4.1	3.6	3.2	3.0	2.6	2.8	3.47	2.4	10.5	8.1
6	3.2	4.9	4.5	4.8	6.5	6.1	5.5	5.1	5.6	5.1	11.0	10.2	6.04	2.5	11.0	8.5
7	9.8	6.2	7.3	9.4	10.2	4.9	3.2	2.5	2.3	2.8	1.2	0.9	5.06	0.9	12.1	11.2
8	0.8	0.9	1.2	1.6	1.7	3.1	2.9	5.4	6.8	10.3	10.5	7.0	4.35	**0.8**	11.0	10.2
9	7.6	5.5	7.0	8.0	8.2	12.9	12.8	4.6	5.9	4.7	3.2	4.4	7.07	2.3	**13.3**	11.0
10	3.7	4.0	3.6	4.0	3.7	2.9	3.4	3.2	2.3	2.2	2.1	2.9	3.17	1.5	6.9	5.4
11	3.1	2.4	3.4	3.6	2.8	4.6	3.4	3.1	7.2	3.8	5.8	4.0	3.93	1.5	8.5	7.0
12	4.9	5.8	6.0	9.4	9.4	7.5	8.6	2.3	10.6	10.2	10.9	10.7	8.03	4.9	11.4	6.5
13	6.3	5.8	8.2	8.4	7.7	8.3	8.2	7.9	6.0	8.2	7.3	4.8	7.26	4.8	11.4	6.6
14	4.0	4.6	4.6	4.4	5.0	6.6	7.8	4.5	4.8	3.9	4.4	4.2	4.90	3.2	8.1	4.9
15	4.0	1.7	2.5	2.6	3.4	4.0	5.1	4.1	3.4	5.5	4.6	5.1	3.83	1.3	6.0	4.7
16	4.0	3.8	4.6	5.0	4.4	3.9	5.1	6.0	4.3	4.9	4.3	7.0	4.78	2.4	7.0	4.6
17	6.8	7.0	6.0	7.0	9.1	10.2	5.7	9.2	7.4	7.6	8.4	8.3	7.73	5.6	11.0	5.4
18	6.6	9.3	6.9	8.6	7.6	8.0	4.4	4.6	3.8	1.4	1.2	1.2	5.30	1.2	9.6	8.4
19	1.5	0.9	3.2	5.8	6.9	10.6	9.8	9.5	9.7	7.9	3.4	*3.6*	6.07	0.9	11.8	10.9
20	*4.0*	4.0	5.0	5.6	5.7	4.0	5.8	7.6	7.6	3.9	4.4	5.3	5.24	3.0	8.5	5.5
21	5.3	4.8	5.9	6.0	7.0									3.0	7.0	4.0
Mean*	5.11	4.88	5.20	5.93	6.28	6.12	6.04	5.46	5.82	5.75	5.48	5.45	5.63	2.7	9.8	7.1

* 1st to 20th.

THE DAILY PERIOD.

The numbers in the last row in the Tables on pp. 63—107, giving the monthly means of the temperature for each even hour, have been corrected for the march of the temperature during the month, and reduced to Noon in the usual manner[1]. The mean of the reduced 12 values has been taken, and the deviation of each of the 12 numbers from this monthly mean calculated. The following Tables contain these deviations, expressed in hundredths of a degree Centigrade. Minus indicates below, plus above, the mean.

TEMPERATURE OF AIR. DAILY PERIOD. 0°.01 C.

January.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	−20	+10	−11	+17	+07	+07	+31	−41	−12	+22	+04	−11	31
1900	−45	−17	+09	+11	+10	+14	+38	+07	+15	+12	−08	−40	31
1901	+51	+10	+48	−01	+16	−42	−18	−12	−68	−22	+34	−01	31
1902	+15	+09	+35	+22	+04	+12	+13	−39	−38	−36	−02	+04	31
Mean	00	+03	+20	+12	+09	−02	+16	−21	−26	−06	+07	−12	
Smoothed	−02	+07	+14	+13	+07	+05	+02	−13	−20	−08	−01	−04	

February.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	−15	+15	00	−03	+39	+01	+06	+33	−18	−14	−27	−11	28
1900	−30	−28	−17	+57	+31	+30	+63	+46	−22	−32	−42	−46	28
1901	+55	+07	−10	−36	−10	+28	−29	00	−38	−21	+37	+16	28
1902	−13	−06	−04	+03	+23	+15	+18	+12	−18	−07	−21	−06	28
Mean	−07	−03	−08	+05	+21	+18	+14	+23	−24	−18	−13	−12	
Smoothed	−04	−04	−03	+06	+16	+18	+18	+09	−11	−19	−14	−09	

March.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	−70	−85	−71	−46	+08	+71	+96	+25	+67	+57	+02	−50	31
1900	−91	−48	−89	−66	−14	+107	+94	+99	+19	+02	−08	+01	31
1901	−13	−88	−131	−63	−25	+73	+141	+75	+28	−19	+01	+12	31
1902	−63	−38	−62	−63	+16	+81	+125	+67	+22	−02	−30	−51	31
Mean	−59	−65	−88	−59	−04	+83	+114	+67	+34	+10	−09	−22	
Smoothed	−60	−75	−80	−60	+05	+83	+110	+70	+35	+10	−08	−28	

[1] H. Wild. Die Temperaturverhältnisse des Russischen Reiches. Erste Hälfte. p. 9.

April.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	− 93	−104	− 82	− 20	+68	+ 70	+105	+109	+ 82	+24	−57	−108	30
1900	−224	−216	−209	−104	+44	+189	+227	+259	+213	+46	−49	−175	30
1901	−127	−141	−122	− 63	+29	+112	+163	+130	+ 54	+30	−16	− 54	30
1902	−179	−201	−157	− 51	+41	+175	+207	+192	+122	+38	−67	−119	30
Mean	−156	−165	−142	− 59	+46	+136	+176	+173	+117	+35	−47	−114	
Smoothed	−156	−165	−142	− 59	+46	+136	+176	+173	+117	+35	−47	−114	

May.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	−148	−102	− 35	−07	+39	+104	+117	+110	+ 95	+25	−57	−139	31
1900	−230	−235	−148	−26	+60	+171	+176	+210	+163	+82	−65	−164	31
1901	−112	−114	− 75	−35	+13	+ 75	+ 80	+ 90	+ 87	+40	+03	− 51	31
1902	−150	−166	−109	−06	+23	+101	+151	+159	+102	+38	−38	−103	31
Mean	−160	−154	− 92	−19	+34	+113	+131	+142	+112	+46	−39	−114	
Smoothed	−160	−154	− 92	−18	+34	+105	+138	+142	+111	+46	−39	−114	

June.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	− 80	− 53	−58	−06	−10	+72	+ 99	+ 49	+50	+39	−14	−84	30
1900	−135	−112	−57	+05	+22	+89	+105	+105	+70	+31	−23	−97	30
1901	− 64	− 71	−61	−45	+16	+61	+ 55	+ 65	+41	+41	+07	−44	30
1902	− 78	− 77	−62	+11	+23	+47	+ 60	+ 85	+56	+16	−37	−40	30
Mean	− 89	− 78	−59	−09	+13	+67	+ 80	+ 76	+54	+32	−17	−66	
Smoothed	− 89	− 78	−51	−16	+21	+60	+ 80	+ 76	+54	+25	−17	−66	

July.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1899	− 73	− 68	−94	−19	−13	+46	+ 96	+106	+71	+06	−14	−44	23
1900	−103	−123	−60	−49	00	+39	+114	+120	+75	+56	−02	−63	31
1901	− 79	− 68	−60	−36	−12	+68	+ 78	+ 77	+62	+27	00	−57	31
1902	− 63	− 84	−50	+25	+69	+48	+ 42	− 14	+42	+19	−06	−07	20
Weighted Mean	− 82	− 87	−66	−25	+07	+51	+ 86	+ 79	+61	+29	−05	−47	
Smoothed	− 82	− 87	−66	−25	+07	+51	+ 86	+ 79	+61	+29	−05	−47	

August.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1900	− 45	−124	−143	−108	−40	+ 37	+108	+141	+122	+76	+10	−34	8
1901	−252	−264	−216	−144	−36	+140	+280	+344	+252	+48	−56	−96	31
Weighted Mean	− 59	− 77	− 72	− 50	−15	+ 35	+ 77	+ 97	+ 75	+25	−09	−26	
Smoothed	− 59	− 77	− 72	− 50	−15	+ 35	+ 77	+ 97	+ 75	+25	−09	−26	

September.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1898	−01	−53	−53	−32	−07	+63	+31	+37	+49	+27	−08	−53	11
1900	−19	+24	+31	+40	+24	+19	+43	−17	−35	−33	−32	−45	13
1901	−44	−38	−38	−08	+29	+54	+85	+56	+03	−24	−39	−41	30
Weighted Mean	−27	−26	−24	−02	+19	+48	+61	+33	+05	−13	−29	−45	
Smoothed	−32	−26	−19	−02	+19	+48	+51	+33	+05	−13	−29	−37	

October.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Days
1898	−32	−16	−16	+03	−11	+18	+15	+55	+30	+16	−32	−30	31
1899	+28	+83	+52	+05	+12	−28	−73	−48	−16	−22	−37	+49	8
1900	−20	−08	−28	−31	+11	+25	+39	+17	+11	+17	+06	−33	31
1901	−14	+04	−20	−39	−23	+08	+35	+36	+16	−05	−06	+03	31
Weighted Mean	−18	00	−16	−20	−06	+14	+22	+30	+16	+07	−13	−15	
Smoothed	−13	−09	−13	−15	−05	+11	+22	+25	+17	+04	−09	−15	

November.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
1898	−16	−48	−19	+46	+12	+30	+05	−07	−12	+13	+11	−11	30
1899	−42	−17	+24	+08	−08	−04	+04	+09	+29	+06	−06	−10	30
1900	+21	−35	−48	+06	−22	−37	−09	+05	+35	+36	+38	+11	30
1901	−26	+20	+36	+30	+19	+10	+03	+03	−17	−18	−29	−27	30
Mean	−16	−20	−02	+23	00	00	+01	+03	+09	+09	+01	−09	
Smoothed	−15	−14	00	+11	+06	00	+01	+04	+07	+07	+01	−09	

December.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
1898	−19	−46	−08	−17	−08	+22	+42	+32	−33	+08	+21	+03	31
1899	+01	−01	+04	+25	+40	+23	+26	+11	−33	−63	+06	−42	31
1900	00	−09	+16	−27	+19	−04	−18	−44	−11	+14	+50	+21	31
1901	−08	−36	−29	−32	−52	−39	−02	+26	+50	+58	+56	+13	31
Mean	−07	−23	−04	−13	00	+01	+12	+06	−07	+04	+33	−02	
Smoothed	−10	−14	−11	−08	−03	+03	+08	+04	−01	+09	+17	+06	

Dark Season.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Days
Mean	−09	−07	+01	+05	+03	+03	+04	−02	−05	+02	+06	−02	

The last column gives the number of days in each month, from which bi-hourly observations have been available for the determination of the daily period. It will be seen that all the months from November to June are represented by four years, while the other months — particularly August — or the months in which the Fram was under way, are less frequently represented in this respect. The *means* for these later months have been computed, giving the numbers a weight proportional to the number of observing days. They are designated *Weighted means.*

By plotting the means and drawing a free-hand curve, I obtain the numbers headed "Smoothed". In these as well as in the "Means" the sum of the negative numbers is equal to the sum of the positive numbers. In some months, April, July and August, no smoothing of the numbers has been judged necessary. The smoothed numbers may be taken as the best expression for the daily period.

The minima and maxima of the smoothed curves have been calculated by a parabolic formula[1]. The following Table gives the hour and amount of the minima and maxima, their difference or the daily periodic range, and the "Mean ordinate", or the mean of the 12 positive and negative numbers in the row "Smoothed".

[1] Norw. N. Pol. Exp. 1893–96, p. 469.

Month	Minimum		Maximum		Range	M. O.
	hour	am.	hour	am.		
	h m	°	h m	°	°	°
January	5 44 p. m.	−0.20	6 48 a. m.	+0.14	0.34	0.08
February	8 12 p. m.	−0.19	1 0 p. m.	+0.18	0.37	0.11
March	7 24 a. m.	−0.81	1 38 p. m.	+1.10	1.91	0.51
April	3 34 a. m.	−1.68	2 54 p. m.	+1.79	3.47	1.14
May	2 48 a. m.	−1.64	3 12 p. m.	+1.45	3.09	0.96
June	2 22 a. m.	−0.90	2 40 p. m.	+0.81	1.71	0.53
July	3 33 a. m.	−0.88	2 40 p. m.	+0.88	1.76	0.52
August	4 34 a. m.	−0.78	3 57 p. m.	+0.97	1.75	0.51
September	0 15 a. m.	−0.37	1 16 p. m.	+0.52	0.89	0.26
October	0 30 a. m.	−0.15	4 0 a. m.	−0.09	0.41	0.16
	7 22 a. m.	−0.16	3 30 p. m.	+0.25		
November	2 43 a. m.	−0.15	8 22 a. m.	+0.11	0.26	0.06
	0 43 p. m.	−0.01	7 0 p. m.	+0.07		
December	4 13 a. m.	−0.15	2 15 p. m.	+0.08	0.32	0.08
	5 42 p. m.	−0.01	9 50 p. m.	+0.17		

The Table shows that there is no regular solar diurnal period in the months October, November, December and January. The last row in the foregoing Table, headed "Dark Season" shows the mean for November, December and January, or the dark season, in which the sun is totally below the horizon. It will be seen that no regular daily period comes out. In the months from February to October we have the ordinary period with minimum (except in February) in the morning or night, and maximum some hours after noon.

The *daily range* has an annual period. It is greatest (3°.47) in April, and vanishes in the dark season. The three summer months have nearly the same range of 1°.7 to 1°.8.

The *mean ordinate* has the same period. Its amount is about one fourth of the daily range in the winter months, and about one fourth to one fifth in the summer months.

The effect of the amount of cloud upon the daily period of the temperature of the air is shown in the following Tables. The bi-hourly observations of the temperature have been taken out separately for the *clear* days (daily mean of amount of cloud less than 2) and for the days with sky *overcast* (d. m. o. a. o. c. above 8) and their means taken for each hour, and reduced to noon. The number of clear and overcast days is given in the Table. The Table also shows the daily means of the 12 bi-hourly observations, the daily minimum and maximum, hour and value, and their difference or the daily range. The minimum and maximum have been taken from *smoothed* curves. The

month of August has only one clear day with bi-hourly observations, and has therefore been left out of the Table. The *Dark Season* comprises November, December and January.

Days	January		February		March		April	
	Clear 80	Overcast 5	Clear 48	Overcast 19	Clear 59	Overcast 11	Clear 34	Overcast 23
	°	°	°	°	°	°	°	°
2 a. m.	−37.34	−28.04	−34.07	−18.89	−34.88	−21.68	−28.80	−21.44
4	37.45	27.39	34.04	18.51	34.96	21.62	29.09	21.29
6	37.27	27.40	34.22	18.15	35.39	22.00	28.60	20.73
8	37.39	27.29	34.11	17.93	34.93	21.09	27.20	19.97
10	37.45	26.33	34.12	17.39	34.23	20.81	26.39	19.00
Noon	37.64	25.96	34.08	17.30	33.22	20.45	24.94	18.50
2 p. m.	37.56	25.91	33.94	17.74	33.17	20.37	24.41	18.42
4	38.04	26.07	33.91	17.45	33.70	20.77	24.33	18.63
6	38.02	26.64	34.10	18.60	34.06	21.26	24.99	19.01
8	37.61	27.35	34.12	18.43	34.34	21.37	26.47	19.73
10	37.41	27.98	34.08	18.43	34.37	21.47	27.60	20.24
Midt.	−37.51	−28.86	−34.05	−18.85	−34.45	−21.40	−28.13	−21.28
Mean	−37.56	−27.10	−34.24	−18.14	−34.31	−21.19	−26.75	−19.85
Min.	5 p. m.	Midt.	Noon	1 a. m.	6 a. m.	4 a. m.	4 a. m.	2 a. m.
	−37.8	−28.9	−34.1	−18.9	−35.2	−21.7	−29.1	−21.5
Max.	5 a. m.	1 p. m.	4 p. m.	Noon	1 p. m.	1 p. m.	3 p. m.	2 p. m.
	−37.3	−26.0	−33.9	−17.4	−33.3	−20.3	−24.3	−18.4
Range	0.5	2.9	0.2	1.5	1.9	1.4	4.8	3.1

Days	May		June		July		September	
	Clear 30	Overcast 47	Clear 24	Overcast 52	Clear 18	Overcast 45	Clear 5	Overcast 20
	°	°	°	°	°	°	°	°
2 a. m.	−14.05	− 9.47	+ 0.41	− 0.35	+ 4.23	+ 2.05	−10.84	− 8.80
4	13.98	9.51	0.91	− 0.19	4.37	1.95	10.94	8.54
6	12.75	9.08	1.57	− 0.03	4.58	2.00	11.98	8.41
8	11.65	8.62	2.18	+ 0.37	5.27	2.16	11.06	8.07
10	11.13	8.17	2.17	+ 0.78	5.84	2.51	10.80	7.73
Noon	10.22	7.53	3 06	+ 1.17	5.89	2.81	9.76	7.72
2 p. m.	9.85	7.25	2.97	+ 1.06	6.16	2.87	10.74	7.60
4	9.64	7.16	2.93	+ 1.16	6.06	3.02	10.12	8.10
6	9.97	7.62	2.84	+ 0.81	6.31	2.69	10.54	8.51
8	10.28	8.08	2.56	+ 0.58	6.61	2.49	10.86	8.57
10	12.13	8.59	1.80	+ 0.37	5.50	2.49	11.02	8.69
Midt.	−13.51	− 9.19	+ 0.93	− 0.01	+ 4.85	+ 2.16	−10.84	− 8.88
Mean	−11.60	− 8.36	+ 2.03	+ 0.48	+ 5.47	+ 2.43	−10.08	− 8.30
Min.	3 a. m.	3 a. m.	2 a. m.	3 a. m.	3 a. m.	4 a. m.	6 a. m.	1 a. m.
	−14.2	− 9.6	+ 0.6	− 0.3	+ 4.2	+ 1.9	−11.5	− 8.9
Max.	4 p. m.	3 p. m.	3 p. m.	2 p. m.	6 p. m.	4 p. m.	1 p. m.	1 p. m.
	− 9.6	− 7.1	+ 3.0	+ 1.1	+ 6.3	+ 3.0	−10.2	− 7.6
Range	4.6	2.5	2.4	1.4	2.1	1.1	1.3	1.3

Days	October		November		December		Dark Season	
	Clear 12	Overcast 42	Clear 58	Overcast 11	Clear 65	Overcast 11	Clear 203	Overcast 27
	°	°	°	°	°	°	°	°
2 a. m.	−23.58	−15.35	−31.35	−21.29	−33.64	−24.95	−34.06	−25.36
4	23.80	15.10	31.52	21.16	33.79	24.35	34.11	24.76
6	24.38	15.11	31.10	21.47	33.62	23.88	34.25	24.30
8	24.55	14.82	31.21	20.99	33.88	23.90	34.00	24.25
10	24.43	14.43	31.42	20.81	33.84	24.11	34.13	24.06
Noon	24.28	14.69	31.45	20.75	33.65	23.77	34.24	23.75
2 p. m.	24.53	14.69	31.61	20.35	33.53	23.75	34.25	23.49
4	23.68	14.42	31.36	20.70	33.61	23.81	34.23	23.34
6	23.93	14.99	31.31	20.66	33.84	23.88	34.34	23.53
8	23.91	14.77	31.26	20.67	33.80	24.77	34.39	23.73
10	23.61	15.33	31.17	21.40	33.49	24.62	34.22	24.26
Midt.	−23.39	−15.57	−31.13	−22.06	−33.54	−25.16	−34.02	−24.69
Mean	−24.01	−14.94	−31.32	−21.03	−33.69	−24.25	−34.19	−24.13
Min.	8 a. m.	Midt.	2 p. m.	Midt.	9 a. m.	1 a. m.	8 p. m.	Midt.
	−24.5	−15.5	−31.5	−22.2	−33.8	−25.1	−34.4	−25.0
Max.	Midt.	Noon	11 p. m.	2 p. m.	10 p. m.	2 p. m.	Midt.	4 p. m.
	−23.4	−14.6	−31.1	−20.5	−33.6	−23.7	−34.0	−23.7
Range	— 1.1	0.9	— 0.4	1.7	— 0.2	1.4	0.4	1.7

The Table shows that the temperature of the air is lower with a clear than with an overcast sky in the months January to May, and September to December, and higher in the months June and July. The difference is

Jan.	Feb.	March	April	May	June
°	°	°	°	°	°
−10.46	−16.10	−13.12	−6.90	−3.24	+1.55
July	**Sept.**	**Oct.**	**Nov.**	**Dec.**	**Dark S.**
°	°	°	°	°	°
+3.04	−1.78	−9.07	−10.29	−9.44	−10.06

It is only in the summer months that the clear sky is favourable to the rise of the temperature by insolation, and that the cloudiness checks it. In all the other seasons a clear sky is favourable to radiation from the earth and loss of heat, and an overcast sky checks this radiation. The effect is greatest respectively in February and in July, and has a regular annual period. With a *clear sky* we find, in the months October to January, the daily minimum of temperature in the day hours, and the maximum in the night hours. This seems to be a not uncommon daily march of the temperature in arctic regions in the cold season.

In all the other months, from February to September, we find, with a clear sky, the ordinary daily period with a minimum in the early

morning hours, and a maximum some hours after noon. The range has a maximum in the spring months, April and May.

With an *overcast* sky, we find the ordinary daily period in every month, even in the dark season. The range comes out rather high in January, but has its maximum in April, and is rather low in the summer months.

The daily period of the temperature of the air in the arctic and antarctic regions deserves a fuller investigation by means of all the available observations. It is particularly the inverted period with a clear sky and the ordinary period with an overcast sky in the dark season that promise, when their causes can be found, to throw a new light upon the work of radiation from and to the earth in the lower atmosphere. It is with this end in view that I have discussed the observations from the Fram's drift in 1893 to 1896[1].

The Tables on pp. 63—107 give the minimum and the maximum temperature for each day, and their difference, or the *aperiodic range*. The last horizontal row shows the monthly means of these three columns. Putting these means together, we have the following Tables. The brackets indicate the incomplete months.

Mean monthly Minima.

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[−12.8°]	−17.8°	−31.0°	−34.7°
1899	−36.8°	−35.6°	−35.0°	−24.9°	−11.7°	−0.6°	[+0.8°]			[−24.6]	−29.5	−32.8
1900	−38.3	−27.3	−31.6	−26.8	−12.9	−0.9	+0.7	[+0.5°]	[−10.9]	−21.5	−30.7	−37.6
1901	−42.3	−39.1	−39.0	−29.7	−15.1	−3.8	+1.2	−0.8	−10.5	−22.5	−27.9	−32.7
1902	−38.7	−32.4	−37.5	−28.2	−14.9	+0.4	[+2.7]					
Mean	−39.0	−33.6	−35.8	−27.4	−13.9	−1.2	+1.4	−0.1	−11.1	−21.6	−29.8	−34.4

Mean monthly Maxima.

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[− 8.7°]	−12.8°	−24.8°	−28.7°
1899	−30.2°	−28.7°	−27.9°	−17.2°	−5.1°	+4.5°	[+5.6°]			[−16.0]	−22.4	−23.2
1900	−31.1	−17.3	−22.5	−16.0	−3.6	+5.4	+7.1	[+7.3°]	[− 6.6]	−13.9	−22.6	−29.5
1901	−33.9	−27.7	−29.9	−20.2	−8.0	+0.9	+5.4	+3.3	− 5.8	−17.1	−21.7	−26.5
1902	−33.5	−26.1	−31.6	−21.0	−8.5	+5.2	[+9.8]					
Mean	−32.2	−24.8	−28.0	−18.6	−6.3	+4.0	+7.0	+5.3	− 7.0	−15.0	−22.9	−27.0

[1] The Norwegian North Polar Expedition, 1893—1896. Scientific Results, edited by Fridtjof Nansen. Vol. VI, pp. 473—481, and 603—607.

Aperiodic Range.

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[4.1]	5.0	6.2	6.0
1899	6.6	6.9	7.1	7.7	6.6	5.1	[4.8]			[8.6]	7.1	9.6
1900	7.2	10.0	9.1	10.8	9.3	6.3	6.4	[6.8]	[4.3]	7.6	8.1	8.1
1901	8.4	11.5	9.1	9.5	7.1	4.6	4.2	4.1	4.7	5.4	6.2	6.2
1902	5.2	6.3	5.9	7.2	6.3	4.8	[7.1]					
Mean	6.9	8.7	7.9	8.8	7.3	5.2	5.6	5.5	4.4	6.7	6.9	7.5
Smoothed	7.5	8.1	8.3	8.2	7.2	5.8	5.4	5.2	5.2	6.2	6.9	7.2

The regular annual period of the Minima and Maxima is a little broken in February, where the values are apparently too high in relation to January and March.

The aperiodic range is highest in the winter months and lowest in the summer months. The smoothing[1] of the numbers gives a maximum in March and April, and a minimum in August and September.

[1] $s = \frac{1}{4}(a + 2b + c)$.

THE ANNUAL PERIOD.

The following Table gives the mean temperature for each month, extracted from the Tables on pp. 63—107 last row for the complete months. The incomplete months — in brackets — are completed by means of the four-hourly observations made on board the Fram when she was under way in the summer months in the straits near the winter quarters, or when there are only four-hourly observations.

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[−8°.4]	−15°.3	−28°.3	−31°.9
1899	−33°.5	−32°.3	−31°.3	−21°.0	−8°.4	+1°.7	[+3°.1]	[+2°.4]	−3.4	[−18.4]	−26.4	−28.4
1900	−35.1	−22.4	−27.8	−21.6	−8.3	+1.8	+3.0	[+0.6]	[−8.0]	−17.7	−27.3	−34.2
1901	−38.9	−34.4	−35.3	−25.6	−11.8	−1.6	+2.9	+0.9	−8.2	−19.9	−24.9	−29.9
1902	−36.3	−29.5	−34.2	−24.5	−11.5	+2.5	[+5.3]					
Mean	−36.0	−29.7	−32.2	−23.2	−10.0	+1.1	+3.6	+1.2	−7.0	−17.8	−26.7	−31.1
Smoothed	−33.2	−31.9	−29.3	−23.2	−10.0	+1.1	+3.6	+1.2	−7.0	−17.8	−26.7	−31.2
Red.	−33.3	−32.0	−29.5	−23.5	−9.9	+1.5	+3.8	+1.4	−6.9	−17.9	−26.9	−31.5

The regular progression of the numbers in the line "Mean" is broken by those for January (too low) and February (too high); and I have therefore smoothed the numbers for the months December to March, as shown in the next line.

The means in the Table are means for the month. Reducing them to the middle day of the month[1], we obtain the numbers in the last line (Red.).

The mean for the year is — 17°.05.

Parabolic curves for minimum and maximum give as the

Coldest day, January 18th. Temperature — 33°.3

Warmest day, July 15th. —»— + 3.8

Annual range . . . . 37.1.

Mean annual temperature — 17°.05 occurs May 1st and October 12th.

[1] Hann. Lehrb. d. Met. p. 99.

Temperature below $-17^{\circ}.0$ during 198 days
—»— above „ „ 165 „
—»— passes zero in ascending June 8th, in descending August 22nd
—»— below zero during 290 days
—»— above „ „ 75 „
Sun below horizon for 24 hours from October 30 to February 11.
„ above „ „ „ „ „ April 21 to August 22.
Dark season 104 days
Sunny „ 123 „
Equinoctial „ 138 „
The lowest temperatures registered with the minimum thermometer are

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[−14°.3]	−29°.9	−35°.5	−38°.5
1899	−42°.8	−40°.4	−41°.4	−34°.9	**−25°.7**	−4°.8	[−1°.3]			[−29.0]	**−37.6**	−42.1
1900	−49.1	−43.5	−45.1	−39.0	−22.0	−5.2	−1.0	[−0°.5]	[−17.0]	−28.5	−37.2	**−46.4**
1901	**−51.4**	**−47.7**	**−46.6**	**−39.4**	−24.9	**−9.8**	−1.0	**−6.4**	**−21.1**	**[−30.9]**	−35.4	−37.7
1902	−43.0	−42.7	−44.9	−35.7	−22.8	−7.5	+0.8					
Mean	−46.6	−43.6	−44.5	−37.2	−23.9	−6.8	−0.6	−3.5	−17.5	−29.6	−36.4	−41.2

The absolutely lowest temperatures are distinguished by heavier type. The lowest is $-51^{\circ}.3$, January 20th, 1901. The year 1901 had generally the lowest temperatures. In the mean, February shows higher minima than January and March; this is in accordance with the mean temperature found for February.

Days with a temperature below -40°:

Year	December		January		February		March	
		Days		Days		Days		Days
1899	18	1	1 & 2	2	8 & 9	2	6—12	7
			7	1				
	20—22	3	25	1				
			27	1				
1900	17—29	13	13—26	14	25—27	3	25—27	3
	31	1						
1901		0	1—3	3	3—9	7	1—3	3
			8 & 9	2	12 & 13	2	8—22	15
			11—24	14	17 & 18	2		
			26	1	26—28	3		
1902			2—8	7	17—19	3	1 & 2	2
			14	1			4—7	4
			22—24	3			9—19	11
Total		18		50		22		45
Mean per Year		4.5		12.5		5.5		11.25

Mean number of days with a temperature below -40° for the whole year, 34. A temperature below -50° was observed only on the 19th and 20th of January, 1901.

The highest absolute temperatures are:

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898									[−5.1]	− **2.2**	−14.6	−17.7
1899	−21.5	−22.8	−14.5	−7.2	**+2.6**	+ 9.5	+ 9.2			[− 5.3]	−11.4	− **1.5**
1900	**−15.2**	+ **1.8**	− **10.1**	−6.3	+1.6	**+12.2**	+10.8	[+ **11.3**]	[−0.6]	− 3.0	− 9.2	− 9.9
1901	−21.7	− 8.0	−12.7	−9.6	+0.1	+ 8.0	+11.5	+ 7.8	**+3.0**	−10.9	− **8.0**	−18.6
1902	−24.8	−12.5	−14.5	**−4.3**	+1.2	+12.0	[+**13.3**]					
Mean	−20.8	−10.4	−12.9	−6.8	+1.4	+10.4	+11.2	+ 9.6	+1.9	− 5.3	−10.8	−12.0

In the months May to September, the temperature may rise above zero. The absolute maximum temperature found is $13^{\circ}.3$ in July, 1902, in the last winter quarters. February has remarkably high maximum temperatures, particularly in 1900, when there was a succession of temperatures above zero in the evening of the 9th and the morning of the 10th, with southerly wind.

Days with a temperature above 10°:

Year	June		July		August	
		Days		Days		Days
1900	26 & 27	2	21	1	7 & 8	2
			25	1		
1901		0	12	1		0
			14	1		
1902	30	1	4—9	6		
			12 & 13	2		
			17	1		
			19	1		
Total		3		14		2
Per Year . . .		0.75		3.5		1

Mean number of days with a temperature above 10° for the whole year, 5.

The absolute range of the temperature becomes $13^{\circ}.3 + 51^{\circ}.3$ or $64^{\circ}.6$. The respective dates are July 9th, 1902 (pressure 756 mm., Wind SE, 6 m. p. s.), and January 20th, 1901 (pr. 750 mm. N. 6 m. p. s.).

The differences between the mean highest and lowest temperatures in each month are

Jan.	Feb.	March	April	May	June
25.8	33.2	31.6	30.4	25.3	17.2
July	Aug.	Sept.	Oct.	Nov.	Dec.
11.8	13.1	19.4	24.3	25.6	29.2

The oscillation of the temperature is greatest in February and least in July. The annual period is very regular, with the exception of January, which seems a little too low, and February too high.

THE INTERDIURNAL VARIABILITY OF THE TEMPERATURE OF THE AIR.

Taking the difference between the daily mean temperature of one day (Tables, pp. 63—107) and that of the next, and then the mean of the differences for rising and falling temperatures for each month, we obtain the numbers in the first two columns in the Table below. The third column gives the weighted mean of the first two columns. The monthly numbers of cases or days with rising and with falling diurnal temperatures are in the 4th and 5th columns.

	1	2	3	4	5
	Temperature		Mean of 1 and 2	Temperature	
	rising	falling		rising	falling
	+	—	±	Days	Days
January 1899—1902	2.74°	2.99°	2.87°	15.75	15.25
February — —	4.02	3.53	3.78	13.25	14.75
March — —	3.36	2.93	3.15	15	15
April — —	3.04	2.33	2.71	16	14
May — —	2.17	1.99	2.09	18	13
June — —	1.14	1.02	1.09	18.75	11.25
July — —	1.12	1.10	1.11	14.5	16.5
August 1900—1901	1.29	1.08	1.17	13	18
September 1898, 1900—01	1.32	1.73	1.55	13	17
October 1898—1901	2.48	2.86	2.72	13.5	17.5
November — —	2.97	2.73	2.83	13	17
December — —	2.81	3.14	2.97	15.5	15.5
Mean and Total	2.37	2.29	2.34	179.25	185.75

The columns 1, 2 and 3 show a very decided annual period. The interdiurnal variability is greatest in the winter time; the maximum lies in February, and the minimum in June. The mean rising for the year is a little greater than the falling. The time during which the temperature is rising, is shorter than its time of falling; it rises more quickly than it falls.

THERMAL WIND-ROSES.

The wind-rose for the frequency of the different wind-directions shows that the observed number of some directions is so small, that it is not sufficient to give a mean that could fairly show the thermal character of the wind in question. Generally the north wind is by far the most prevalent, and it is only in the months of June, July and August that the other winds are so frequent as to make it worth while to compute thermal wind-roses for them. The result of these computations is shown in the following Table. *C* indicates the directly-found mean temperatures, and *S* the smoothed values. The intermediate directions NNE, ENE, etc., have been distributed among the adjacent principal directions with half their numbers, and every direction given a weight equal to the ensuing number of observations.

	June. 4 Years		July. 4 Years		August. 2 Years	
	C	S	C	S	C	S
	°	°	°	°	°	°
N	−0.10	0.17	4.10	3.86	0.73	0.69
NNE	−0.63		3.85		1.45	
NE	0.12	0.33	4.73	4.34	4.05	0.81
ENE	—		11.00		5.90	
E	2.29	1.16	2.01	3.90	1.54	1.67
ESE	2.00		3.50		—	
SE	0.50	1.59	4.02	3.57	2.51	2.02
SSE	2.93		2.86		1.03	
S	2.07	1.74	3.20	3.26	1.65	1.89
SSW	1.68		2.79		2.76	
SW	0.83	1.83	3.00	2.96	1.68	1.96
WSW	3.33		2.26		—	
W	3.03	1.59	2.39	2.44	3.50	1.49
NNW	2.65		1.41		0.40	
NW	2.21	0.43	1.31	3.13	0.78	0.82
NNW	−0.22		6.39		0.54	
Calm	1.65		2.78		1.85	
Min.	N		W		N	
Max.	SW		NE		SE	

The way in which the numbers run for July, with the highest temperature with NE, seems to indicate that the observations of 4 years are insufficient to give a fair representation of the thermal wind-rose.

MOISTURE OF THE ATMOSPHERE.

In summer and autumn the observations for determining the force or tension of aqueous vapour in the atmosphere and the relative humidity, were made by the psychrometer or dry and wet-bulb thermometers suspended in the thermometer-screen. When the temperature was above — 10° C., the force of vapour and the relative humidity were computed by means of Jelinek's Psychrometer Tables, the readings of the wet bulb having been corrected by Ekholm's rule for temperatures below zero.

The Expedition had two hair-hygrometers, system Koppe, made by Pfister & Streit in Bern. They were suspended in the thermometer-screen, and could be verified in saturated air which is produced by putting the cover with a wet side over them. When the hygrometer in use required cleaning, or did not seem to work well, it was taken in, and the other instrument put out, after having been verified and corrected in saturated air. The occasions noted in the journal when the hygrometer was changed were: in 1899, March 25 and 31, May 18, 28, June 22, 23; in 1900, January 16, April 28, October 4; in 1901, April 23, 24, June 1, September 2, 3, 28, October 20, November 22; in 1902, January 7, 28, February 11, 12, 13, March 24.

When the temperature of the air was below — 10°, the force of vapour was computed by means of the psychrometer Tables from the readings of the hair-hygrometer and those of the dry thermometer. An error in the reading of the hygrometer has very little effect, in low temperatures, upon the amount of the force of vapour. The numbers in the following Tables have been found from the psychrometer; in 1899, June, July; in 1900, July, August; in 1901, July, August (missing psychrometer-observations completed by hair-hygrometer observations corrected by the corrections found from the simultaneous observations with both); in 1902, June (to which the above remark applies), July; and from the reading of the hair-hygrometer in all the other months, corrected as far as possible.

In the Tables, the force of vapour is given in millimetres (mm.) and the relative humidity as percentages (p. c.). The last row gives the monthly means.

1898. September.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$

Day	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Noon mm.	Noon p. c.	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Midt. mm.	Midt. p. c.
19	*1.5*	*74*	*1.5*	*73*	*1.5*	*70*	1.5	69	1.6	68	1.6	74	1.6	75	1.5	74	1.4	77	1.4	79	1.5	77	1.7	82
20	1.6	78	1.7	82	1.7	80	1.8	75	1.8	70	1.8	70	1.9	70	1.9	73	1.9	77	1.9	79	1.7	62	1.7	74
21	*1.6*	*80*	1.4	78	1.7	78	1.6	75	1.6	77	1.8	76	1.9	78	2.0	81	2.0	79	1.9	75	1.9	76	2.0	76
22	1.9	75	1.9	75	2.0	73	2.0	73	1.9	71	1.9	70	1.9	70	1.8	81	1.8	71	1.8	73	1.7	75	1.5	75
23	1.6	77	1.4	77	1.6	79	1.3	78	1.4	77	1.4	74	1.3	73	1.2	71	1.2	69	1.1	68	1.1	67	1.1	67
24	1.3	65	1.3	55	1.4	65	1.4	66	1.5	67	1.4	67	1.5	71	1.6	75	1.6	77	1.6	84	1.5	75	1.5	75
25	1.5	84	1.5	84	1.2	77	1.3	81	1.3	77	1.5	73	1.6	67	1.5	67	1.6	72	1.5	74	1.5	79	1.4	70
26	1.4	73	1.4	71	1.4	62	1.2	60	*1.2*	*60*	*1.3*	*59*	1.3	59	1.3	58	1.2	54	1.2	56	1.2	57	*1.2*	*60*
27	1.2	63	1.1	64	0.9	62	1.2	61	1.2	57	1.3	59	0.9	64	1.3	56	1.2	56	1.2	53	1.1	54	1.2	56
28	1.3	56	1.3	56	1.3	57	1.3	56	1.4	58	1.4	50	1.3	55	1.5	56	1.4	59	1.3	57	1.2	59	1.1	65
29	1.0	63	1.1	64	1.1	69	1.2	67	1.1	65	1.2	63	1.1	61	1.1	65	1.0	61	1.2	70	1.2	72	1.3	81
30	1.4	87	1.5	90	1.4	94	1.4	90	1.5	98	1.0	96	1.4	95	1.3	89	1.4	88	1.4	90	1.4	89	1.4	89
Mean	1.44	73.0	1.41	72.5	1.43	72.2	1.43	71.1	1.46	70.6	1.47	70	1.47	68.9	1.50	70.7	1.47	70.0	1.46	71.5	1.41	69.8	1.42	72.6

1898. October.

Rice Strait. $\varphi = 78^\circ\ 46'$ N. $\lambda = 74^\circ\ 57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.4	90	1.4	90	1.4	90	1.5	90	1.5	90	1.3	78	1.2	73	1.3	75	1.4	74	1.4	76	1.5	77	1.5	78
2	1.6	78	1.6	78	1.7	80	1.8	84	1.9	84	1.9	85	1.8	80	1.7	79	1.8	82	1.9	84	1.8	82	1.6	81
3	1.5	85	1.5	83	1.5	83	1.6	83	1.6	84	1.7	83	1.7	84	1.8	88	1.9	89	1.9	89	1.9	87	1.8	86
4	1.9	86	1.9	83	2.0	85	1.9	83	1.9	85	2.0	84	2.1	87	2.0	89	2.2	94	2.2	89	2.2	90	2.2	90
5	2.2	84	1.7	87	2.0	88	2.3	77	2.4	75	2.5	73	2.4	77	2.2	84	1.9	89	2.4	79	2.0	87	1.9	88
6	2.2	90	1.7	92	2.1	88	1.6	73	1.4	84	1.8	79	1.7	78	1.9	74	1.6	65	1.7	62	1.4	74	1.4	75
7	1.5	72	1.7	65	1.8	70	1.6	67	1.6	74	1.6	76	1.6	74	1.4	76	1.4	82	1.3	80	1.3	69	1.3	76
8	1.3	74	1.3	76	1.3	75	1.5	64	1.7	76	1.7	76	1.8	78	1.7	73	1.6	73	1.7	85	1.7	82	1.8	84
9	1.6	80	1.7	79	1.7	83	1.7	81	1.7	75	1.7	75	1.8	80	1.7	77	1.7	79	1.6	80	1.6	81	2.0	77
10	1.6	77	1.5	80	1.5	80	1.5	79	1.5	82	1.5	84	1.5	84	1.6	85	1.8	93	1.7	86	1.6	85	1.9	87
11	1.8	88	1.8	83	1.6	81	1.8	90	1.8	91	1.8	90	1.8	89	1.8	83	1.8	89	1.8	85	1.3	91	1.5	89
12	1.4	88	1.5	86	1.4	87	1.5	90	1.5	80	1.7	95	1.3	86	1.5	71	1.4	77	1.3	81	1.3	80	1.0	79
13	1.1	87	1.2	86	1.3	86	1.6	77	1.6	77	1.4	79	1.5	77	1.8	64	1.8	67	1.9	67	1.9	66	2.3	88
14	2.3	90	2.1	90	2.0	90	2.0	89	2.6	95	3.5	98	3.8	100	3.5	95	2.8	77	2.3	61	2.2	68	2.4	81
15	2.7	87	3.2	89	*3.0*	*92*	2.9	95	2.9	95	2.6	93	2.6	87	2.5	93	2.3	94	2.4	95	2.5	96	2.0	78
16	1.5	69	1.3	74	1.2	78	1.1	68	1.1	75	1.1	74	1.1	78	1.0	75	0.9	70	1.0	68	0.9	72	1.0	72
17	1.0	72	1.3	70	1.2	70	1.2	67	1.2	70	1.2	73	1.2	78	1.2	76	1.4	82	1.4	85	1.3	81	1.2	79
18	1.2	78	1.2	76	1.3	81	1.2	80	1.2	80	1.2	77	1.2	77	1.2	82	1.3	82	1.2	77	1.3	80	1.2	80
19	1.3	81	1.4	78	1.4	82	1.4	80	1.4	80	1.3	76	1.2	82	1.2	76	1.3	78	1.3	85	1.3	85	1.0	86
20	1.0	79	0.9	66	0.8	61	0.7	60	0.8	70	0.7	69	0.7	65	0.7	66	0.8	71	0.8	80	0.8	81	0.7	80
21	0.6	74	0.6	74	0.6	71	0.6	71	0.6	70	0.5	71	0.5	65	0.6	57	0.6	60	0.6	62	0.7	62	0.8	68
22	0.9	74	0.9	77	0.8	78	0.9	77	0.9	78	0.8	78	0.8	80	0.9	79	0.9	78	0.9	81	0.9	83	0.9	82
23	0.8	79	0.8	79	0.8	79	0.8	81	0.7	75	0.7	74	0.7	75	0.7	77	0.7	77	0.7	77	0.7	80	0.7	80
24	0.6	79	0.7	85	0.7	84	0.6	87	0.6	87	0.6	88	0.6	85	0.6	85	0.5	85	0.5	85	0.5	80	0.7	82
25	0.7	79	0.7	77	0.7	76	0.7	76	0.7	78	0.7	78	0.7	78	0.7	75	0.7	71	0.6	77	0.6	78	0.6	78
26	0.6	76	0.6	78	0.6	80	0.6	82	0.6	81	0.6	76	0.5	84	0.5	80	0.4	72	0.4	70	0.4	76	0.4	73
27	0.4	70	0.4	75	0.4	70	0.4	71	0.4	73	0.4	70	0.4	70	0.4	74	0.4	75	0.4	72	0.4	83	0.4	83
28	0.5	79	0.4	81	0.4	78	0.4	80	0.4	79	0.4	80	0.4	76	0.4	78	0.4	83	0.4	77	0.4	80	0.4	77
29	0.4	79	0.5	78	0.4	75	0.4	72	0.5	75	0.5	77	0.6	78	0.5	74	0.5	77	0.5	86	0.5	88	0.5	86
30	0.4	86	0.5	83	0.5	81	0.4	85	0.4	86	0.5	85	0.5	82	0.4	80	0.4	79	0.5	80	0.4	79	0.4	81
31	0.4	77	0.4	77	0.4	74	0.4	81	0.4	76	0.4	76	0.4	75	0.5	76	0.4	76	0.3	82	0.4	85	0.4	84
Mean	1.24	80.3	1.24	79.9	1.24	79.9	1.24	78.9	1.27	80.1	1.30	79.8	1.30	79.5	1.29	78.0	1.27	78.8	1.26	78.8	1.21	80.4	1.22	80.9

1898. November.

Rice Strait. $\varphi = 78^\circ\ 46'$ N. $\lambda = 74^\circ\ 57'$ W.

Day	2^h		4^h		6^h		8^h		10^h		Noon		2^h		4^h		6^h		8^h		10^h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.4	85	0.4	86	0.4	80	0.3	86	0.5	83	0.5	80	0.4	80	0.4	78	0.4	77	0.3	80	0.3	83	0.3	81
2	0.3	80	0.3	77	0.3	79	0.4	84	0.4	86	0.3	86	0.3	85	0.3	85	0.3	85	0.4	80	0.4	86	0.4	80
3	0.4	82	0.4	84	0.4	83	0.4	80	0.4	82	0.4	83	0.4	82	0.3	79	0.3	77	0.3	76	0.3	75	0.3	70
4	0.4	73	0.4	72	0.3	78	0.4	82	0.3	83	0.3	86	0.3	83	0.3	84	0.3	84	0.3	83	0.3	84	0.3	83
5	0.3	84	0.3	82	0.3	82	0.3	83	0.3	80	0.3	81	0.3	82	0.3	84	0.2	83	0.2	83	0.3	82	0.3	82
6	0.3	82	0.3	80	0.3	80	0.4	82	0.4	82	0.4	80	0.4	84	0.4	83	0.4	82	0.4	80	0.4	84	0.3	84
8	0.4	84	0.4	85	0.4	78	0.4	83	0.5	82	0.5	80	0.4	81	0.4	85	0.4	83	0.4	78	0.5	73	0.4	72
8	0.4	75	0.4	73	0.4	73	0.5	68	0.4	75	0.5	69	0.5	69	0.5	70	0.5	73	0.4	80	0.4	78	0.4	73
9	0.4	75	0.3	78	0.4	75	0.4	80	0.4	77	0.4	78	0.4	78	0.4	80	0.3	81	0.3	81	0.4	81	0.4	81
10	0.4	81	0.4	81	0.3	85	0.4	80	0.3	83	0.3	81	0.3	81	0.3	81	0.3	80	0.3	83	0.4	77	0.3	80
11	0.3	85	0.3	81	0.4	85	0.4	78	0.3	80	0.4	81	0.3	80	0.4	75	0.4	75	0.3	81	0.3	79	0.3	81
12	0.3	84	0.3	83	0.3	80	0.3	79	0.2	82	0.3	76	0.3	73	0.3	73	0.3	73	0.3	67	0.3	74	0.3	71
13	0.3	74	0.3	77	0.3	83	0.3	78	0.3	76	0.3	85	0.3	74	0.3	83	0.3	84	0.3	85	0.3	85	0.3	83
14	0.3	81	0.3	85	0.3	84	0.3	83	0.2	82	0.2	80	0.2	78	0.2	80	0.2	80	0.2	82	0.2	82	0.2	83
15	0.2	83	0.2	84	0.2	84	0.2	80	0.2	83	0.2	83	0.3	82	0.3	80	0.3	81	0.3	81	0.3	81	0.3	82
16	0.2	85	0.2	84	0.2	83	0.2	82	0.2	80	0.2	83	0.2	84	0.2	82	0.2	82	0.2	81	0.2	76	0.2	80
17	0.2	81	0.2	79	0.2	81	0.3	78	0.3	73	0.3	78	0.3	78	0.3	80	0.3	81	0.3	81	0.3	80	0.3	80
18	0.3	80	0.3	78	0.3	85	0.3	83	0.3	83	0.2	84	0.3	83	0.2	83	0.2	83	0.2	82	0.2	83	0.2	83
19	0.2	83	0.2	83	0.2	81	0.3	81	0.3	77	0.3	78	0.3	80	0.3	80	0.3	81	0.3	81	0.3	82	0.3	84
20	0.3	89	0.3	86	0.3	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	85	0.3	84	0.4	85	0.3	85	0.3	86
21	0.3	85	0.3	85	0.2	85	0.4	85	0.4	84	0.4	83	0.5	85	0.5	84	0.5	82	0.5	83	0.6	83	0.6	83
22	0.6	80	0.6	84	0.6	84	0.8	83	0.7	80	0.8	73	0.8	69	0.7	69	0.7	63	0.8	53	0.8	71	0.7	73
23	0.8	71	0.8	72	0.9	79	0.9	74	0.9	76	1.0	79	1.1	85	1.1	83	0.9	75	0.9	68	0.8	72	0.7	73
24	0.6	70	0.6	76	0.7	87	0.6	90	0.6	90	0.6	91	0.6	91	0.5	89	0.5	85	0.4	85	0.6	86	0.5	86
25	0.5	89	0.5	87	0.5	90	0.5	91	0.4	90	0.4	82	0.4	87	0.4	87	0.5	87	0.7	83	0.7	74	0.7	77
26	0.7	79	0.6	85	0.7	81	0.6	83	0.6	80	0.6	81	0.6	78	0.4	85	0.4	87	0.4	89	0.4	89	0.4	87
27	0.4	85	0.4	82	0.4	75	0.5	76	0.4	80	0.3	75	0.3	72	0.4	75	0.3	73	0.4	75	0.4	73	0.4	71
28	0.4	65	0.4	65	0.4	68	0.5	70	0.5	70	0.5	72	0.5	73	0.5	77	0.5	80	0.5	82	0.6	84	0.5	81
20	0.5	87	0.4	88	0.4	89	0.5	88	0.4	90	0.4	92	0.3	90	0.3	90	0.3	90	0.3	90	0.3	91	0.3	90
30	0.3	90	0.3	90	0.3	90	0.3	81	0.3	88	0.3	88	0.3	85	0.3	84	0.2	85	0.2	86	0.2	88	0.2	88
Mean	0.38	81.0	0.37	81.2	0.38	81.9	0.41	81.3	0.39	81.5	0.36	81.1	0.36	80.7	0.38	81.2	0.37	80.7	0.37	80.3	0.39	80.8	0.37	80.4

1898. December.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	88	0.2	88	0.2	88	0.2	86	0.2	88	0.2	86	0.2	85	0.2	85	0.2	88	0.2	88	0.2	90	0.2	88
2	0.2	88	0.2	88	0.2	88	0.2	88	0.2	89	0.2	89	0.2	88	0.2	88	0.2	86	0.2	82	0.2	84	0.2	83
3	0.2	85	0.2	84	0.2	84	0.2	82	0.2	81	0.3	82	0.3	82	0.3	83	0.2	86	0.3	83	0.3	85	0.3	84
4	0.3	83	0.3	83	0.3	82	0.3	83	0.3	80	0.3	80	0.3	79	0.3	84	0.3	81	0.3	81	0.3	84	0.3	81
5	0.3	81	0.3	82	0.3	83	0.3	80	0.4	75	0.3	87	0.4	87	0.4	86	0.4	85	0.3	77	0.3	77	0.3	72
6	0.3	86	0.3	80	0.3	83	0.3	85	0.3	88	0.3	86	0.3	81	0.3	83	0.3	88	0.3	90	0.3	89	0.3	88
7	0.3	89	0.3	89	0.3	86	0.3	86	0.3	85	0.3	86	0.3	87	0.2	90	0.3	91	0.2	90	0.3	90	0.3	89
8	0.3	89	0.2	89	0.2	89	0.2	89	0.2	89	0.2	89	0.2	89	0.2	89	0.2	90	0.2	90	0.2	90	0.2	89
9	0.2	89	0.3	90	0.2	90	0.2	90	0.2	89	0.2	90	0.2	89	0.2	87	0.2	89	0.2	89	0.2	90	0.2	90
10	0.2	87	0.2	89	0.2	85	0.2	88	0.3	88	0.2	90	0.3	87	0.3	86	0.3	86	0.3	86	0.3	86	0.3	88
11	0.3	87	0.3	87	0.3	88	0.3	87	0.3	90	0.3	90	0.3	82	0.3	79	0.3	86	0.3	82	0.2	85	0.3	84
12	0.3	85	0.2	85	0.2	88	0.2	87	0.2	88	0.2	89	0.2	87	0.2	87	0.2	88	0.2	90	0.2	89	0.3	89
13	0.2	88	0.2	89	0.2	89	0.2	88	0.2	87	0.2	80	0.2	82	0.2	85	0.2	85	0.2	78	0.2	80	0.3	84
14	0.2	88	0.2	84	0.2	82	0.2	80	0.2	80	0.2	80	0.2	80	0.2	79	0.2	80	0.2	80	0.3	81	0.3	82
15	0.2	80	0.3	78	0.3	73	0.3	73	0.3	67	0.4	55	0.4	55	0.4	52	0.4	50	0.5	57	0.5	49	0.4	49
16	0.4	52	0.4	54	0.4	54	0.4	60	0.4	62	0.5	68	0.5	70	0.4	72	0.4	76	0.4	80	0.5	74	0.3	82
17	0.3	81	0.4	87	0.5	85	0.5	86	0.5	88	0.5	84	0.3	87	0.4	87	0.3	92	0.4	87	0.3	92	0.3	89
18	0.3	93	0.3	92	0.4	85	0.3	91	0.3	92	0.4	94	0.5	87	0.5	85	0.6	86	0.5	86	0.4	85	0.5	87
19	0.7	88	0.4	88	0.4	91	0.3	93	0.3	94	0.3	94	0.3	94	0.3	94	0.3	93	0.4	93	0.3	94	0.2	93
20	0.2	93	0.2	92	0.2	94	0.3	92	0.3	94	0.2	89	0.2	91	0.2	92	0.2	94	0.2	92	0.3	85	0.3	93
21	0.3	87	0.2	94	0.3	92	0.3	87	0.3	86	0.3	86	0.2	89	0.3	86	0.3	85	0.2	85	0.2	85	0.2	86
22	0.2	87	0.3	89	0.2	89	0.2	88	0.2	89	0.2	85	0.2	86	0.2	89	0.2	90	0.2	91	0.2	89	0.2	93
23	0.2	91	0.2	88	0.3	91	0.3	91	0.3	92	0.3	92	0.3	90	0.3	89	0.2	91	0.2	90	0.2	91	0.2	92
24	0.2	91	0.2	91	0.2	92	0.2	90	0.5	88	0.2	87	0.2	86	0.2	88	0.2	89	0.3	88	0.3	86	0.3	82
25	0.3	80	0.3	89	0.3	81	0.3	83	0.3	82	0.3	81	0.3	82	0.3	79	0.3	82	0.3	75	0.3	76	0.3	72
26	0.3	75	0.3	79	0.3	73	0.3	75	0.3	75	0.3	77	0.3	82	0.3	81	0.2	83	0.3	84	0.3	75	0.3	73
27	0.3	79	0.3	70	0.3	69	0.3	70	0.3	70	0.3	77	0.3	77	0.3	81	0.3	81	0.3	81	0.3	80	0.3	72
28	0.3	71	0.3	78	0.3	82	0.3	80	0.3	76	0.3	77	0.3	76	0.3	79	0.3	81	0.3	75	0.3	77	0.3	78
29	0.3	72	0.2	82	0.2	86	0.2	88	0.2	89	0.2	88	0.2	90	0.2	90	0.2	91	0.2	89	0.3	88	0.2	87
30	0.2	90	0.2	90	0.2	90	0.2	90	0.2	90	0.2	88	0.2	82	0.2	81	0.2	88	0.2	80	0.2	79	0.2	85
31	0.2	85	0.2	86	0.2	89	0.2	88	0.2	87	0.2	80	0.2	80	0.2	80	0.2	81	0.2	85	0.2	84	0.2	87
Mean	0.27	84.3	0.26	85.1	0.27	84.7	0.26	84.4	0.28	84.6	0.27	84.2	0.27	83.7	0.27	84.0	0.27	85.5	0.27	84.1	0.28	83.7	0.27	83.8

1899. January.

Rice Strait. $\varphi = 78^\circ\ 46'$ N. $\lambda = 74^\circ\ 57'$ W.

Day	2^h		4^h		6^h		8^h		10^h		Noon		2^h		4^h		6^h		8^h		10^h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.1	88	0.1	85	0.2	88	0.1	81	0.1	83	0.1	85	0.1	85	0.1	84	0.1	87	0.1	85	0.1	84	0.1	86
2	0.1	87	0.1	89	0.1	85	0.1	87	0.1	85	0.1	86	0.1	83	0.1	85	0.1	81	0.1	77	0.1	78	0.1	74
3	0.1	87	0.1	87	0.2	82	0.1	76	0.2	80	0.2	80	0.2	79	0.2	80	0.2	80	0.2	82	0.3	82	0.2	86
4	0.2	86	0.2	87	0.2	88	0.2	81	0.2	87	0.2	88	0.2	87	0.2	87	0.2	87	0.2	88	0.2	88	0.2	86
5	0.2	85	0.2	97	0.2	90	0.2	88	0.3	87	0.2	88	0.2	87	0.2	89	0.2	89	0.2	89	0.2	88	0.2	89
6	0.2	90	0.2	90	0.2	90	0.2	90	0.2	90	0.2	90	0.2	89	0.2	89	0.2	85	0.2	82	0.2	87	0.2	85
7	0.2	83	0.2	85	0.2	84	0.2	83	0.2	84	0.2	85	0.3	81	0.3	80	0.2	83	0.2	82	0.2	79	0.3	77
8	0.2	75	0.2	75	0.3	73	0.2	70	0.1	70	0.4	73	0.3	80	0.2	83	0.2	85	0.3	80	0.2	82	0.2	86
9	0.2	84	0.3	83	0.3	83	0.3	83	0.3	89	0.2	88	0.3	85	0.2	86	0.3	84	0.2	86	0.2	86	0.3	85
10	0.2	81	0.2	86	0.3	84	0.2	85	0.3	83	0.2	85	0.3	84	0.2	83	0.3	83	0.3	85	0.4	80	0.2	84
11	0.3	85	0.4	77	0.3	83	0.3	82	0.3	83	0.4	82	0.4	77	0.3	85	0.3	83	0.3	82	0.2	75	0.4	82
12	0.5	63	0.5	57	0.4	71	0.4	78	0.5	60	0.4	60	0.4	61	0.4	78	0.5	62	0.5	63	0.5	72	0.2	70
13	0.3	75	0.3	71	0.3	75	0.4	75	0.4	76	0.3	78	0.3	76	0.3	75	0.3	77	0.3	78	0.3	85	0.3	79
14	0.3	78	0.3	82	0.3	84	0.3	82	0.2	83	0.3	77	0.3	81	0.2	82	0.2	85	0.3	82	0.2	84	0.2	86
15	0.2	81	0.2	82	0.2	83	0.2	82	0.3	83	0.2	85	0.2	86	0.2	83	0.2	81	0.2	84	0.2	86	0.2	81
17	0.2	86	0.3	76	0.1	82	0.2	83	0.2	81	0.3	72	0.2	80	0.3	79	0.3	80	0.3	80	0.2	82	0.2	89
17	0.3	88	0.2	89	0.2	90	0.3	85	0.2	86	0.2	86	0.2	85	0.2	85	0.2	85	0.2	89	0.2	89	0.2	89
18	0.2	90	0.2	82	0.3	88	0.3	74	0.3	71	0.3	71	0.3	78	0.2	80	0.3	77	0.3	85	0.3	81	0.3	80
19	0.3	82	0.3	84	0.3	80	0.3	85	0.3	80	0.3	80	0.3	78	0.3	79	0.3	80	0.3	81	0.2	88	0.3	86
20	0.2	86	0.2	86	0.2	85	0.2	85	0.2	88	0.2	89	0.2	87	0.2	87	0.2	85	0.2	83	0.3	75	0.2	75
21	0.2	75	0.2	75	0.2	74	0.3	73	0.2	73	0.3	72	0.3	72	0.3	80	0.2	83	0.2	83	0.2	85	0.2	86
22	0.2	86	0.2	86	0.2	87	0.2	85	0.2	86	0.2	86	0.2	86	0.2	88	0.2	87	0.2	87	0.2	87	0.2	88
23	0.2	85	0.2	87	0.2	88	0.2	90	0.1	83	0.2	82	0.2	86	0.2	85	0.2	86	0.2	88	0.2	84	0.2	86
24	0.2	90	0.2	86	0.2	88	0.2	85	0.2	86	0.2	87	0.2	87	0.7	89	0.1	89	0.1	89	0.2	88	0.2	86
25	0.2	85	0.2	83	0.2	85	0.2	83	0.1	87	0.1	87	0.1	89	0.1	88	0.1	89	0.1	88	0.1	89	0.1	88
26	0.1	88	0.1	89	0.1	89	0.2	89	0.1	88	0.1	88	0.1	87	0.1	88	0.1	88	0.1	87	0.1	87	0.1	85
27	0.1	88	0.1	88	0.1	88	0.1	87	0.1	86	0.1	87	0.1	92	0.1	89	0.1	87	0.1	86	0.1	86	0.1	84
28	0.1	80	0.1	78	0.2	81	0.2	81	0.2	82	0.2	75	0.3	75	0.3	70	0.4	76	0.4	71	0.4	71	0.4	72
29	0.4	72	0.4	73	0.4	75	0.4	71	0.4	74	0.3	76	0.3	80	0.4	80	0.3	85	0.3	84	0.3	85	0.3	85
30	0.3	85	0.3	87	0.3	87	0.3	88	0.3	88	0.3	90	0.3	90	0.3	89	0.4	81	0.5	75	0.5	75	0.5	75
31	0.5	78	0.5	75	0.4	84	0.4	83	0.4	84	0.4	80	0.4	80	0.4	85	0.4	84	0.4	82	0.4	86	0.4	90
Mean	0.22	83.1	0.23	82.6	0.24	83.8	0.24	82.3	0.23	82.4	0.24	82.0	0.24	82.5	0.25	83.7	0.24	83.3	0.24	82.9	0.24	83.1	0.23	83.4

1899. February.

Rice Strait. $\varphi = 78^\circ 46' N.$ $\lambda = 74^\circ 57' W.$

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.4	87	0.3	86	0.3	86	0.3	85	0.3	85	0.3	83	0.3	83	0.3	79	0.3	77	0.3	79	0.3	70	0.3	72
2	0.2	76	0.3	89	0.3	75	0.3	78	0.3	76	0.3	73	0.4	72	0.4	75	0.3	74	0.3	75	0.3	80	0.3	82
3	0.2	84	0.2	84	0.2	85	0.3	80	0.3	81	0.3	77	0.3	78	0.3	70	0.3	75	0.4	72	0.3	71	0.4	71
4	0.4	65	0.3	68	0.3	68	0.3	68	0.3	76	0.4	78	0.3	76	0.3	73	0.3	76	0.2	79	0.3	80	0.2	89
5	0.3	82	0.3	80	0.3	78	0.3	78	0.3	68	0.3	78	0.2	80	0.2	77	0.2	78	0.3	76	0.3	78	0.3	74
6	0.3	77	0.3	76	0.2	80	0.3	76	0.3	76	0.3	76	0.3	78	0.3	79	0.2	84	0.2	86	0.2	83	0.2	84
7	0.2	85	0.3	87	0.3	86	0.3	85	0.3	84	0.3	85	0.2	88	0.2	87	0.2	86	0.2	89	0.2	90	0.2	88
8	0.2	87	0.2	83	0.2	88	0.2	90	0.2	90	0.2	90	0.1	90	0.2	90	0.2	88	0.1	89	0.1	89	0.1	89
9	0.2	90	0.3	87	0.3	82	0.5	87	0.6	93	0.4	95	0.3	93	0.2	85	0.3	85	0.3	89	0.2	86	0.4	73
10	0.5	73	0.4	73	0.4	65	0.4	66	0.5	68	0.4	71	0.3	78	0.3	79	0.3	81	0.3	77	0.3	76	0.3	76
11	0.2	82	0.2	85	0.3	76	0.3	78	0.3	77	0.3	77	0.3	78	0.3	80	0.3	81	0.3	83	0.3	83	0.3	85
12	0.3	75	0.3	75	0.2	80	0.2	82	0.3	76	0.2	79	0.3	73	0.3	69	0.3	75	0.2	78	0.2	85	0.2	86
13	0.2	86	0.2	88	0.2	88	0.3	89	0.3	87	0.2	90	0.2	91	0.2	92	0.2	91	0.2	92	0.2	90	0.2	94
14	0.2	92	0.2	91	0.2	91	0.3	92	0.2	92	0.2	92	0.2	92	0.3	95	0.3	93	0.3	82	0.2	86	0.3	86
15	0.3	84	0.3	80	0.3	73	0.3	77	0.3	77	0.3	82	0.4	78	0.4	80	0.4	75	0.5	76	0.4	86	0.5	83
16	0.4	87	0.4	89	0.4	88	0.4	89	0.3	92	0.3	93	0.3	94	0.3	94	0.2	95	0.3	95	0.3	96	0.2	95
17	0.3	94	0.3	95	0.3	95	0.3	95	0.4	94	0.4	93	0.4	91	0.3	91	0.3	93	0.3	91	0.3	89	0.3	87
18	0.3	82	0.3	85	0.3	90	0.3	95	0.4	92	0.4	87	0.4	81	0.5	82	0.4	85	0.4	86	0.5	83	0.5	87
19	0.5	89	0.7	87	0.5	86	0.4	91	0.4	94	0.3	95	0.4	94	0.3	95	0.3	95	0.3	95	0.3	93	0.3	93
20	0.3	95	0.3	94	0.2	95	0.2	95	0.2	95	0.2	95	0.2	94	0.2	94	0.2	94	0.2	95	0.2	95	0.2	95
21	0.3	93	0.2	94	0.2	95	0.2	95	0.2	95	0.3	95	0.3	95	0.3	94	0.3	94	0.3	93	0.3	92	0.3	92
22	0.3	92	0.3	90	0.3	90	0.2	92	0.2	89	9.2	88	0.2	89	0.2	87	0.2	89	0.2	90	0.2	93	0.2	93
23	0.2	94	0.2	90	0.2	95	0.2	94	0.2	95	0.2	95	0.2	94	0.2	94	0.2	93	0.2	93	0.2	94	0.1	94
24	0.1	94	0.1	94	0.2	94	0.1	93	0.1	94	0.1	94	0.2	95	0.2	95	0.2	93	0.2	89	0.3	93	0.3	94
25	0.3	93	0.3	90	0.3	94	0.2	95	0.2	95	0.2	94	0.3	94	0.3	92	0.3	94	0.3	94	0.3	96	0.2	95
26	0.3	92	0.3	90	0.3	91	0.2	92	0.3	91	0.2	92	0.3	91	0.3	90	0.2	94	0.2	93	0.2	92	0.2	95
27	0.2	95	0.2	93	0.2	95	0.2	94	0.2	94	0.2	94	0.2	94	0.2	95	0.2	95	0.2	94	0.2	87	0.2	86
28	0.1	93	0.2	95	0.1	93	0.2	94	0.1	94	0.2	94	0.2	94	0.2	92	0.1	92	0.2	92	0.2	89	0.2	91
Mean	0.28	86.8	0.28	86.5	0.27	85.9	0.28	86.6	0.29	86.6	0.27	87.1	0.28	86.9	0.28	86.0	0.26	86.7	0.26	86.6	0.26	86.7	0.26	87.0

1899. March.

Rice Strait $\varphi = 78^{\circ}46'$ N. $\lambda = 74^{\circ}57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	93	0.2	93	0.1	93	0.2	94	0.2	89	0.2	88	0.2	89	0.2	85	0.2	88	0.2	87	0.2	86	0.2	81
2	0.2	88	0.2	94	0.2	92	0.3	84	0.2	83	0.3	81	0.2	87	0.2	87	0.3	87	0.3	79	0.3	77	0.2	80
3	0.2	90	0.2	92	0.2	91	0.2	86	0.2	86	0.2	86	0.3	85	0.2	90	0.2	92	0.3	83	0.2	85	0.2	88
4	0.2	88	0.3	93	0.3	92	0.2	93	0.3	88	0.4	86	0.4	83	0.4	80	0.3	79	0.3	83	0.3	83	0.2	90
5	0.2	87	0.3	81	0.3	82	0.2	82	0.2	84	0.2	81	0.2	81	0.2	83	0.2	83	0.2	85	0.2	81	0.2	82
6	0.2	86	0.2	87	0.2	86	0.2	86	0.2	86	0.2	83	0.2	81	0.2	83	0.2	83	0.2	85	0.1	81	0.2	84
7	0.1	87	0.1	90	0.1	90	0.1	91	0.1	91	0.1	91	0.2	88	0.2	78	0.2	79	0.2	81	0.1	80	0.1	75
8	0.2	80	0.2	78	0.2	78	0.2	74	0.2	77	0.2	83	0.2	84	0.1	84	0.1	85	0.1	87	0.1	86	0.1	87
9	0.1	83	0.1	85	0.1	84	0.1	84	0.1	81	0.1	79	0.1	75	0.2	74	0.2	75	0.2	76	0.1	72	0.1	82
10	0.1	85	0.1	84	0.2	81	0.2	78	0.2	85	0.2	84	0.2	89	0.2	91	0.2	93	0.2	92	0.1	91	0.1	92
11	0.1	91	0.1	91	0.1	91	0.1	91	0.1	91	0.1	90	0.1	89	0.1	88	0.1	88	0.1	87	0.1	86	0.1	86
12	0.2	88	0.2	92	0.1	92	0.1	92	0.2	92	0.1	91	0.2	89	0.2	88	0.2	88	0.2	85	0.2	89	0.6	88
13	0.3	87	0.2	89	0.3	89	0.2	82	0.3	82	0.3	82	0.2	83	0.3	75	0.3	71	0.3	71	0.2	83	0.2	86
14	0.3	85	0.2	86	0.2	85	0.2	85	0.2	82	0.2	85	0.2	86	0.2	89	0.2	89	0.2	86	0.2	87	0.2	87
15	0.2	89	0.2	89	0.3	89	0.2	85	0.2	88	0.2	87	0.2	85	0.2	82	0.2	83	0.2	87	0.2	89	0.2	90
16	0.2	90	0.3	92	0.2	91	0.2	92	0.2	92	0.2	90	0.2	86	0.2	91	0.2	89	0.1	91	0.2	90	0.2	90
17	0.1	93	0.1	93	0.2	90	0.1	92	0.2	93	0.2	90	0.2	86	0.2	93	0.2	91	0.1	91	0.1	92	0.1	93
18	0.1	92	0.2	94	0.2	88	0.2	87	0.2	85	0.3	79	0.3	80	0.2	81	0.2	82	0.2	80	0.2	82	0.2	83
19	0.2	88	0.3	75	0.2	78	0.3	76	0.2	72	0.3	76	0.3	67	0.3	71	0.4	67	0.4	65	0.3	70	0.4	70
20	0.3	84	0.3	81	0.3	82	0.2	85	0.3	78	0.3	80	0.4	80	0.4	80	0.4	82	0.3	70	0.4	72	0.5	81
21	0.6	91	0.6	91	0.6	96	0.6	98	0.6	97	0.7	90	0.7	94	0.6	97	0.6	99	0.7	95	0.7	91	0.7	70
22	0.6	68	0.7	84	0.6	73	0.6	74	0.6	86	0.7	71	0.7	70	0.5	66	0.6	70	0.7	70	0.7	76	0.6	77
23	0.7	73	0.7	66	0.7	70	0.8	57	0.7	67	0.8	65	0.6	71	0.6	89	0.5	90	0.5	98	0.6	87	0.5	97
24	0.6	99	0.5	98	0.6	88	0.4	99	0.4	98	0.4	100	0.5	98	0.6	98	0.6	98	0.6	99	0.5	100	0.5	100
25	0.4	100	0.5	100	0.3	99	0.4	100	0.5	100	0.7	90	0.7	86	0.6	88	0.7	82	0.7	85	0.7	90	0.6	90
26	0.9	81	0.8	86	0.8	83	0.8	84	0.9	78	0.9	85	0.9	88	0.8	92	0.9	81	0.9	81	0.9	84	0.8	92
27	0.8	93	0.8	95	0.6	100	0.5	100	0.8	95	0.8	94	0.7	97	0.6	100	0.6	100	0.5	100	0.5	100	0.6	100
28	0.6	100	0.6	100	0.6	100	0.5	97	0.6	98	0.3	96	0.5	91	0.5	100	0.6	98	0.6	99	0.5	100	0.5	98
29	0.5	100	0.5	100	0.4	100	0.5	100	0.5	100	0.5	100	0.6	100	0.6	100	0.6	100	0.5	100	0.5	100	0.5	100
30	0.5	99	0.5	97	0.5	97	0.5	97	0.5	100	0.6	95	0.5	98	0.5	98	0.6	95	0.5	98	0.5	98	0.5	99
31	0.6	95	0.6	100	0.6	100	0.6	100	0.6	96	0.5	72	0.5	72	0.5	73	0.5	74	0.5	80	0.6	83	0.5	82
Mean	0.34	89.0	0.35	89.8	0.33	89.0	0.32	88.2	0.35	88.1	0.36	85.6	0.37	85.4	0.35	86.6	0.36	86.1	0.35	86.0	0.34	86.5	0.34	87.4

1899. April.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2^h		4^h		6^h		8^h		10^h		Noon		2^h		4^h		6^h		8^h		10^h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.6	83	0.5	86	0.5	87	0.5	83	0.5	82	0.5	83	0.5	82	0.2	82	0.6	82	0.5	85	0.5	87	0.5	88
2	0.5	89	0.5	89	0.4	83	0.5	85	0.5	84	0.5	85	0.4	83	0.4	80	0.4	81	0.4	83	0.4	85	0.4	84
3	0.4	86	0.3	88	0.4	87	0.4	85	0.4	85	0.4	83	0.4	82	0.4	82	0.4	84	0.4	85	0.3	90	0.3	88
4	0.3	87	0.3	87	0.2	86	0.3	86	0.3	87	0.3	87	0.4	88	0.4	88	0.3	87	0.3	88	0.3	87	0.3	87
5	0.4	87	0.4	83	0.4	84	0.4	84	0.4	86	0.4	82	0.5	85	0.4	85	0.4	82	0.4	82	0.3	87	0.3	87
6	0.3	87	0.2	86	0.3	81	0.3	87	0.4	89	0.3	89	0.4	85	0.4	84	0.4	87	0.4	87	0.4	88	0.5	87
7	0.5	90	0.5	90	0.6	90	0.6	90	0.8	90	0.9	89	0.9	89	0.9	90	0.8	89	0.7	89	0.7	92	0.7	90
8	0.7	92	0.7	91	0.7	94	0.7	88	0.6	82	0.7	84	0.7	87	0.6	87	0.5	88	0.6	90	0.5	91	0.5	83
9	0.6	93	0.5	93	0.4	91	0.6	92	0.6	90	0.9	83	0.7	76	0.6	80	0.5	87	0.5	88	0.4	91	0.5	90
10	0.5	89	0.4	91	0.5	90	0.6	85	0.6	88	0.7	90	0.7	84	0.7	90	0.7	90	0.8	92	0.8	90	0.8	93
11	0.9	91	0.8	90	0.9	91	0.8	91	0.8	91	0.9	91	0.9	92	1.0	90	1.0	96	0.9	91	0.9	91	0.7	92
12	0.7	91	0.8	87	0.8	89	0.7	86	0.7	80	0.7	69	0.7	66	0.7	67	0.7	67	0.6	81	0.6	82	0.7	84
13	0.6	72	0.6	74	0.7	72	0.8	74	0.9	78	0.8	71	0.2	85	0.9	87	1.0	91	1.0	92	0.9	93	0.7	92
14	0.7	93	0.7	93	0.8	93	0.7	87	0.8	82	0.8	79	0.9	81	1.0	89	1.1	90	1.0	90	1.1	90	1.1	86
15	1.0	90	1.0	91	1.0	91	0.9	91	1.0	86	1.0	91	1.1	89	1.1	90	1.1	90	1.1	88	1.2	91	1.2	91
16	1.2	93	1.2	92	1.3	92	1.5	92	1.8	92	1.7	92	1.8	92	1.8	88	2.2	92	2.2	93	1.8	91	1.8	92
17	1.4	93	2.0	95	2.1	93	2.3	89	2.2	92	2.2	92	1.5	79	1.3	85	1.2	82	1.1	89	1.2	83	0.7	79
18	0.6	77	0.4	75	0.5	75	0.5	69	0.5	60	0.5	69	0.5	69	0.5	64	0.5	62	0.6	74	0.5	54	0.4	52
19	0.5	69	0.5	74	0.5	75	0.5	66	0.5	46	0.5	52	0.5	67	0.5	66	0.5	67	0.5	65	0.5	66	0.5	74
20	0.5	72	0.5	63	0.6	63	0.6	60	0.6	65	0.6	65	0.6	66	0.6	65	0.6	62	0.6	61	0.6	60	0.6	69
21	0.5	61	0.6	64	0.6	62	0.6	63	0.6	75	0.6	75	0.6	72	0.6	75	0.6	70	0.5	77	0.5	80	0.5	83
22	0.5	76	0.5	70	0.5	71	0.4	70	0.4	60	0.5	63	0.5	66	0.5	56	0.4	49	0.4	48	0.4	50	0.4	55
23	0.4	59	0.4	67	0.5	59	0.5	50	0.5	57	0.5	57	0.5	57	0.6	53	0.6	58	0.5	51	0.5	63	0.5	73
24	0.5	81	0.6	63	0.7	59	0.7	59	0.6	49	0.7	55	0.7	61	0.7	51	0.7	53	0.7	60	0.8	69	0.7	73
25	0.7	72	0.7	58	0.7	72	0.7	71	0.7	73	0.8	67	0.8	64	0.8	69	0.8	65	0.8	70	0.7	79	0.7	85
26	0.7	91	0.7	92	0.7	89	0.7	88	0.7	88	0.7	85	0.7	83	0.8	81	0.7	80	0.7	84	0.7	87	0.6	91
27	0.7	90	0.7	80	0.8	74	0.8	70	0.8	64	0.9	80	0.9	77	0.3	65	1.0	73	0.9	73	0.8	54	0.3	59
28	0.9	61	0.9	64	1.1	76	1.0	54	1.0	61	0.9	56	1.0	69	1.0	50	1.1	51	1.1	69	1.4	81	1.4	94
29	1.6	94	1.4	89	1.2	91	1.2	93	1.2	91	1.3	89	1.2	89	1.3	93	1.2	90	1.2	69	1.2	63	1.0	93
30	1.1	81	1.0	70	1.0	70	0.9	71	0.9	57	0.9	51	1.0	65	1.0	72	1.0	76	0.9	76	0.9	75	0.9	71
Mean	0.68	83.2	0,68	81,3	0,71	81,1	0.72	78,9	0.74	77.1	0.77	76.9	0.74	77.8	0.73	76.9	0.77	77.5	0.74	79.2	0.73	79.8	0.67	82.3

1899. May.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.9	79	0.9	76	1.0	70	0.9	73	0.9	76	0.9	76	0.9	74	0.9	72	0.9	65	1.1	68	1.0	77	0.9	73
2	0.9	74	0.8	75	0.9	82	0.9	79	1.0	80	0.9	74	1.1	82	1.0	85	1.0	88	0.9	87	0.9	88	0.8	86
3	0.7	81	0.7	82	0.8	81	0.8	80	0.8	83	0.9	79	0.9	84	0.8	80	0.8	76	0.7	87	0.6	87	0.6	93
4	0.6	93	0.7	93	0.7	82	0.7	86	0.9	82	0.9	75	0.9	79	0.9	74	0.8	80	0.8	80	0.8	78	0.7	89
5	0.8	80	0.7	84	0.8	84	0.9	78	0.9	85	0.9	81	0.8	75	0.8	69	0.8	66	0.8	84	0.8	87	0.7	89
6	0.6	90	0.7	85	0.7	85	0.4	82	1.0	80	1.2	71	1.0	75	1.5	80	1.4	75	1.3	73	1.3	76	0.8	82
7	0.8	79	0.9	78	0.9	65	1.0	69	1.0	65	1.2	72	1.0	77	1.1	70	1.1	78	1.0	67	0.9	67	0.9	72
8	1.3	64	0.9	64	0.9	51	1.0	59	1.1	75	1.2	75	1.2	75	1.3	75	1.3	75	1.2	70	1.2	69	1.2	74
9	1.3	64	1.1	67	1.3	60	1.5	63	1.5	65	1.5	66	1.6	70	1.7	71	1.7	73	1.7	71	1.7	72	1.8	71
10	1.5	86	1.9	74	1.9	76	2.1	82	2.1	86	2.3	83	1.3	84	2.1	87	2.1	80	2.0	78	1.7	74	2.0	70
11	2.2	80	2.0	70	2.0	84	1.9	76	2.0	79	2.0	77	2.0	72	2.1	79	2.1	79	1.9	82	1.9	81	1.9	80
12	1.9	84	1.8	82	1.8	84	1.7	87	1.8	83	1.8	85	1.9	90	2.0	89	2.0	94	2.0	92	2.1	89	2.5	90
13	2.6	87	2.8	87	2.8	90	3.0	90	3.2	90	3.2	90	3.3	90	4.0	95	3.9	91	3.3	90	2.9	88	2.7	89
14	2.4	86	1.9	73	1.7	71	2.2	85	2.1	84	2.1	81	1.9	75	1.7	67	1.4	54	1.6	64	1.4	64	1.0	53
15	1.1	50	1.1	51	1.2	50	1.2	48	1.4	53	1.5	54	1.5	53	1.5	55	1.4	53	1.4	54	1.5	60	1.7	59
16	1.9	65	2.6	90	2.8	92	2.8	90	2.7	85	2.7	83	2.8	84	2.8	86	2.7	88	2.5	87	2.4	87	2.3	93
17	2.1	89	2.1	84	2.2	85	2.2	80	2.1	72	2.5	71	2.3	80	2.4	82	2.2	92	2.2	94	2.2	97	2.1	96
18	2.3	100	2.3	100	2.3	100	2.6	100	2.8	100	3.1	100	3.2	80	2.3	80	2.3	73	2.3	81	2.2	82	2.2	84
19	2.1	81	2.2	85	2.5	85	2.6	84	2.5	76	2.1	76	2.8	65	2.9	67	2.9	76	2.9	75	2.9	87	2.9	88
20	3.1	82	2.7	81	2.8	67	2.7	85	2.7	78	3.1	89	3.1	74	3.0	83	3.1	78	3.2	87	2.7	76	2.6	82
21	2.4	72	2.3	72	2.6	82	2.8	72	2.8	67	2.8	66	2.7	63	2.9	73	2.2	63	2.3	60	2.3	62	2.0	57
22	1.6	52	1.6	45	1.5	46	1.5	45	1.5	44	1.6	46	1.8	52	1.7	51	1.6	50	1.6	53	1.6	53	1.6	53
23	1.8	61	1.9	62	1.9	59	2.0	60	2.0	59	2.2	53	2.1	63	2.0	62	1.9	53	2.0	54	1.9	59	1.6	49
24	1.6	50	1.5	61	1.7	62	1.7	66	1.7	59	1.9	62	2.0	60	2.2	63	2.0	55	1.9	55	1.8	58	1.9	57
25	2.0	64	1.9	59	1.8	61	2.0	61	2.0	61	2.1	63	2.0	58	2.2	63	2.1	63	2.0	55	2.0	66	1.9	57
26	1.8	54	1.6	46	1.9	51	2.0	65	2.1	68	2.2	65	2.0	55	2.0	52	2.1	52	2.1	63	2.1	68	2.0	68
27	1.9	66	2.0	63	2.1	64	2.3	70	2.3	66	2.2	68	2.6	67	2.7	78	2.9	75	2.7	78	2.4	90	2.2	92
28	2.0	89	2.4	94	2.5	94	2.7	97	2.6	90	2.6	83	2.6	89	2.6	88	2.7	89	2.5	89	2.4	88	2.2	86
29	2.3	86	2.1	60	2.3	59	2.3	61	2.3	62	3.6	51	3.8	60	2.9	72	2.9	70	2.8	75	2.5	74	2.2	84
30	2.2	79	2.2	73	2.2	66	2.3	74	2.3	66	2.4	69	2.5	62	2.5	65	2.4	67	2.4	67	2.3	65	2.4	69
31	2.3	72	2.3	69	2.7	64	1.6	57	2.3	48	2.7	41	4.1	46	2.5	43	2.5	42	2.7	42	3.0	42	2.0	48
Mean	1.71	75.6	1.69	73.8	1.78	72.9	1.85	74.5	1.88	73.2	2.01	71.9	2.05	71.5	2.03	72.5	1.97	71.5	1.93	73.1	1.85	74.7	1.75	75.3

1899. June.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	2.4	71	2.6	71	2.3	66	2.8	74	3.0	76	3.9	80	3.7	79	3.7	69	3.5	68	3.2	71	3.2	71	2.6	81
2	2.8	76	2.8	74	2.7	72	2.7	68	3.0	64	3.3	64	2.8	55	2.9	58	2.8	57	3.0	62	3.2	62	2.8	57
3	2.6	55	6.3	95	3.9	55	2.8	46	2.5	36	3.5	46	4.6	63	3.8	68	3.9	61	4.3	73	4.5	90	3.7	80
4	3.7	98	3.4	53	3.6	81	3.8	81	3.9	85	4.0	89	4.4	92	4.5	88	4.1	89	4.5	90	3.5	87	3.2	84
5	3.4	78	3.5	78	3.5	80	3.6	82	3.5	82	3.7	83	3.9	86	3.8	81	3.7	80	3.6	81	5.0	89	4.3	89
6	4.0	81	3.6	72	3.2	66	3.0	63	2.9	59	3.1	64	2.5	52	2.4	47	2.3	55	2.3	52	2.2	52	2.4	58
7	2.3	55	2.2	51	2.3	50	2.6	59	2.7	57	2.5	49	2.7	53	2.8	57	3.1	61	2.7	53	3.0	56	2.4	48
8	3.4	68	3.0	57	2.5	49	3.2	56	2.7	50	2.9	55	3.0	58	1.9	36	2.9	54	2.8	55	2.9	57	4.6	80
9	2.8	42	3.3	55	3.4	55	3.8	57	3.7	71	3.7	67	5.7	88	3.3	54	3.4	51	3.7	65	4.0	82	4.3	88
10	4.0	94	4.1	85	3.7	69	4.4	94	3.4	54	3.2	53	3.7	65	4.3	94	4.2	89	4.2	90	4.0	87	3.7	73
11	4.0	83	3.8	83	3.9	83	4.0	85	3.8	73	4.2	83	4.1	89	4.1	90	4.1	94	4.0	94	4.0	90	3.9	91
12	3.2	98	3.7	94	3.4	71	3.7	85	3.9	87	3.7	63	4.0	67	3.9	78	4.1	72	3.6	71	3.3	59	3.6	78
13	3.4	63	3.5	62	3.6	62	3.8	65	3.8	68	4.1	63	3.5	55	3.4	52	4.1	71	4.2	64	4.7	83	3.8	73
14	4.1	80	3.9	66	3.3	63	3.8	73	3.7	73	3.8	66	3.6	60	4.0	80	3.4	66	4.2	69	4.3	76	3.2	83
15	3.5	83	3.9	80	4.2	78	3.5	63	3.5	58	3.3	52	3.2	48	3.3	48	3.5	55	3.2	49	3.2	54	3.9	72
16	3.6	62	3.7	62	3.6	62	3.7	66	3.7	67	3.8	68	3.7	63	3.6	58	3.4	55	3.5	58	3.3	56	4.3	73
17	3.5	65	3.5	59	3.4	59	3.4	58	2.8	43	2.7	40	3.2	46	3.8	63	3.5	57	3.7	60	3.8	70	3.7	67
18	4.1	85	4.1	87	4.2	89	4.3	89	4.3	87	4.3	85	4.4	89	4.3	85	3.9	77	4.1	85	4.1	85	4.1	85
19	4.1	87	4.4	92	4.4	94	4.1	87	4.2	89	4.0	83	4.2	85	4.2	89	4.2	85	4.0	80	4.0	81	3.7	73
20	3.7	78	4.1	89	4.0	87	4.3	92	4.4	92	4.3	90	4.1	83	4.3	87	4.5	96	4.3	96	3.8	78	3.8	75
21	4.1	85	3.9	80	4.6	96	3.8	75	4.0	78	4.2	82	4.3	89	4.1	89	4.1	89	4.1	89	4.2	90	4.1	92
22	4.3	94	4.2	90	4.1	98	3.9	87	3.7	75	4.0	77	3.7	76	3.9	85	3.9	83	4.2	94	4.3	90	4.3	92
23	4.3	94	4.3	98	4.4	92	4.0	92	4.0	87	4.1	87	4.2	87	4.1	87	4.2	90	4.3	92	4.0	92	4.1	92
24	3.8	88	3.8	86	3.6	85	4.3	94	3.9	80	3.9	77	4.1	82	4.0	87	4.0	90	4.0	92	3.9	94	3.8	92
25	3.2	87	3.3	89	3.1	87	3.3	84	3.4	76	3.6	88	3.6	69	3.7	88	3.5	92	4.3	82	3.8	78	3.3	87
26	3.7	68	4.0	72	4.7	98	4.3	82	4.0	74	3.8	68	4.1	71	4.2	72	4.2	73	4.3	71	4.4	71	4.5	71
27	4.5	79	4.5	78	4.3	83	4.2	78	4.0	75	4.1	72	4.0	70	4.3	68	4.1	65	3.8	58	4.1	65	5.2	81
28	4.4	68	4.3	72	4.5	66	4.7	69	5.1	81	5.1	87	5.3	92	5.4	83	5.3	84	5.2	91	5.2	90	5.0	91
29	5.2	90	5.2	82	5.1	84	4.7	60	5.1	77	4.7	73	4.6	64	4.6	60	4.7	61	4.7	58	4.1	53	5.1	82
30	4.8	66	4.3	59	4.2	59	4.3	57	3.7	49	4.8	61	4.6	56	4.7	66	4.5	59	4.8	62	4.7	90	4.5	86
Mean	3.70	77.4	3.84	75.7	3.72	74.6	3.76	74.0	3.68	70.8	3.81	70.5	3.92	71.7	3.84	72.2	3.84	72.6	3.89	73.6	3.89	75.9	3.86	79.1

1899. July.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	4.5	78	4.3	70	4.0	62	4.3	70	4.4	92	4.4	92	4.4	92	4.3	90	*4.3*	*92*	4.4	94	4.3	92	4.2	98
2	4.2	92	4.2	94	4.4	92	4.5	92	4.7	85	4.7	87	4.7	85	4.6	82	5.0	79	4.8	71	4.7	84	4.6	85
3	4.5	90	5.1	91	5.5	96	5.2	82	4.8	76	4.4	56	*4.4*	*57*	4.5	59	3.9	52	4.5	73	4.5	73	4.8	80
4	5.1	79	4.6	84	4.6	87	4.7	87	4.3	68	4.7	80	5.0	78	5.3	73	5.2	76	5.0	76	4.8	66	4.4	66
5	4.9	89	4.6	80	*4.3*	*71*	4.0	62	4.7	80	5.2	90	4.8	80	4.8	78	4.6	65	4.5	69	4.3	67	4.6	70
6	4.6	69	*4.6*	*63*	4.6	68	4.6	67	4.0	66	4.5	78	4.5	70	5.4	87	4.5	70	4.3	74	4.0	69	4.5	91
7	4.6	91	4.4	82	5.6	97	4.9	86	5.1	84	4.7	80	5.8	90	4.8	80	4.7	83	4.5	94	4.4	92	4.2	90
8	4.3	89	4.1	89	4.3	90	4.7	89	*4.7*	*83*	4.8	77	5.0	75	5.0	83	4.7	80	4.5	92	4.6	90	4.2	90
9	3.7	96	3.9	96	4.0	83	4.4	89	4.5	79	5.4	84	4.6	63	4.9	74	4.6	69	4.8	72	4.7	82	4.8	83
10	4.8	74	4.8	74	4.8	82	5.1	84	4.9	91	5.0	87	*5.2*	*87*	5.4	87	5.2	87	5.3	90	5.4	90	5.2	82
11	5.0	88	5.1	93	5.2	94	5.4	96	5.1	93	5.2	85	5.1	75	5.1	75	5.0	80	4.7	85	4.9	83	4.9	80
12	4.4	87	4.5	85	4.6	88	4.3	76	4.6	82	4.5	65	4.6	64	4.5	71	4.4	68	4.5	78	4.4	82	4.4	79
13	4.4	89	*4.4*	*92*	4.4	96	4.5	87	4.6	85	4.4	75	4.7	74	5.8	85	4.5	84	4.6	78	4.0	63	4.4	73
14	4.6	85	4.7	85	5.0	91	4.9	87	4.8	87	5.0	93	5.0	94	4.8	86	4.9	86	4.5	76	4.3	74	4.4	79
15	*4.1*	72	4.2	74	4.2	77	4.3	85	4.5	92	4.6	94	4.6	96	4.7	96	4.9	96	4.7	94	4.8	93	4.4	80
16	4.2	68	*4.2*	*65*	*4.1*	*65*	4.1	65	4.2	72	4.4	73	5.1	81	5.5	84	5.1	78	3.9	58	3.9	62	4.3	76
17	4.2	74	4.4	77	4.3	82	4.6	92	4.7	87	4.6	85	4.6	85	4.8	89	4.9	93	4.8	91	4.4	75	4.4	76
18	4.8	87	4.9	93	5.0	91	4.4	77	5.0	88	5.2	90	4.7	76	4.6	74	4.8	78	4.8	85	4.7	89	4.8	94
19	4.9	96	4.9	91	4.8	91	5.4	95	5.7	98	4.7	83	4.8	85	4.7	85	4.8	89	4.8	91	4.8	94	4.7	94
20	4.7	94	*4.7*	*92*	4.6	91	4.7	90	4.7	83	4.7	77	4.8	85	4.8	82	4.3	92	4.5	89	4.3	90	4.6	90
21	4.6	85	4.9	89	5.2	98	5.0	95	4.7	89	4.7	90	4.5	85	4.4	84	4.5	86	4.7	96	4.5	91	4.6	92
22	4.4	87	4.4	89	4.6	92	4.6	91	4.7	87	4.6	92	4.8	87	*4.7*	*86*	*4.5*	*82*	4.4	78	5.1	94	4.4	89
23	4.6	94	4.5	85	4.5	92	*4.7*	*94*	5.0	96	5.8	93	5.4	93	6.3	88	5.1	74	5.5	93	4.9	93	5.1	94
24	5.1	94	5.1	96	5.3	94	5.0	91																
Mean*	4.55	84.9	4.58	84.1	4.70	85.9	4.74	84.3	4.71	84.5	4.79	82.9	4.83	80.7	4.94	81.6	4.71	80.0	4.65	82.5	4.55	82.1	4.56	84.0

* 1st to 23d.

1899. October.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
23													1.2	74	1.6	70	1.7	64	1.7	65	1.7	65	1.8	70
24	1.9	72	1.8	70	1.7	65	1.7	59	1.8	65	1.8	64	1.8	71	1.7	75	1.4	84	1.4	84	1.4	89	1.5	92
25	1.6	90	1.5	90	1.7	92	1.7	92	1.6	91	1.5	91	1.6	82	1.4	85	1.2	82	1.1	86	1.0	88	0.9	90
26	0.8	88	0.8	92	0.7	89	0.7	91	0.8	88	0.6	87	0.5	85	0.5	85	0.7	85	0.6	81	0.6	80	0.6	83
27	0.6	83	0.7	83	0.7	82	0.6	80	0.7	75	0.6	70	0.6	74	0.6	75	0.6	71	0.5	73	0.4	78	0.5	53
28	0.6	50	0.6	51	0.5	63	0.5	67	0.5	69	0.4	74	0.5	77	0.5	73	0.4	79	0.4	81	0.4	77	0.5	76
29	0.4	77	0.5	75	0.4	74	0.4	81	0.4	79	0.4	82	0.4	81	0.3	83	0.4	84	0.4	84	0.4	82	0.4	82
30	0.4	83	0.4	85	0.4	83	0.5	81	0.4	84	0.5	83	0.4	81	0.5	81	0.4	82	0.5	82	0.5	83	0.4	84
31	0.4	83	0.4	84	0.4	85	0.4	86	0.4	85	0.3	85	0.4	85	0.5	85	0.7	83	0.8	78	0.8	73	1.0	85
Mean *	0.84	78.4	0.84	78.9	0.81	79.2	0.81	79.8	0.83	79.7	0.76	79.9	0.78	80.1	0.75	80.0	0.72	81.4	0.71	81.2	0.69	81.6	0.72	80.9

* 24th to 31th.

1899. November.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.2	89	1.2	89	1.2	89	1.1	89	1.2	89	1.4	91	1.5	88	1.5	82	1.4	88	1.3	89	1.3	93	1.2	92
2	1.1	92	1.2	92	1.2	92	1.3	91	1.3	92	1.3	91	1.3	89	1.3	91	1.3	89	1.4	91	1.3	94	1.3	91
3	1.2	93	1.1	79	0.9	57	1.1	83	0.9	82	0.7	58	0.6	52	0.6	57	0.5	61	0.5	68	0.5	75	0.5	77
4	0.5	80	0.5	79	0.5	78	0.5	77	0.4	82	0.4	88	0.4	85	0.5	87	0.6	86	0.6	84	0.7	84	0.7	83
5	0.8	87	0.8	85	0.8	85	0.8	82	0.8	81	0.7	72	0.6	65	0.6	57	0.6	59	0.5	52	0.5	52	0.9	52
6	0.5	53	0.5	56	0.5	50	0.4	49	0.4	55	0.5	51	0.5	49	0.5	48	0.4	56	0.4	58	0.5	61	0.5	59
7	0.5	57	0.6	51	0.6	60	0.6	66	0.7	64	0.7	64	0.6	65	0.6	66	0.6	66	0.5	65	0.5	70	0.5	76
8	0.5	77	0.5	78	0.4	81	0.5	80	0.5	84	0.6	85	0.6	80	0.6	82	0.6	80	0.7	79	0.8	84	0.8	83
9	0.7	81	0.7	84	0.5	84	0.7	83	0.6	81	0.6	81	0.4	85	0.5	83	0.5	68	0.4	67	0.4	65	0.3	65
10	0.3	64	0.3	67	0.3	67	0.3	64	0.3	66	0.3	67	0.3	66	0.3	66	0.3	66	0.3	68	0.2	71	0.2	71
11	0.2	75	0.2	78	0.2	75	0.2	76	0.2	76	0.2	76	0.3	75	0.3	78	0.3	77	0.3	77	0.3	75	0.4	79
12	0.5	81	0.6	82	0.6	85	0.6	84	0.6	86	0.7	85	0.7	88	0.7	84	0.7	84	0.7	85	0.7	86	0.7	85
13	0.7	82	0.6	64	0.7	73	0.6	68	0.6	69	0.5	52	1.1	56	0.5	58	0.5	54	0.5	66	0.4	69	0.4	65
14	0.4	63	0.4	46	0.4	45	0.4	43	0.4	44	0.4	39	0.4	44	0.4	39	0.5	50	0.5	52	0.5	46	0.6	56
15	0.6	71	0.7	79	0.7	82	0.8	84	0.9	98	0.8	89	0.6	74	0.5	75	0.5	75	0.5	71	0.5	75	0.4	75
16	0.4	75	0.3	76	0.4	75	0.4	72	0.3	82	0.3	82	0.3	80	0.3	79	0.3	75	0.3	78	0.3	76	0.3	74
17	0.3	77	0.3	76	0.3	76	0.2	79	0.3	78	0.3	81	0.2	80	0.2	81	0.2	80	0.2	80	0.2	80	0.2	79
18	0.2	76	0.2	76	0.2	81	0.3	72	0.3	75	0.2	80	0.2	79	0.3	76	0.3	76	0.3	80	0.3	73	0.3	76
19	0.3	72	0.2	78	0.4	72	0.3	74	0.3	71	0.3	69	0.3	70	0.3	74	0.3	73	0.2	76	0.3	78	0.3	80
20	0.2	80	0.2	80	0.2	80	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79
21	0.2	78	0.2	78	0.3	76	0.2	76	0.3	75	0.3	74	0.2	76	0.3	72	0.4	71	0.4	70	0.4	69	0.4	72
22	0.4	74	0.4	72	0.5	78	0.6	70	0.6	79	0.6	79	0.6	80	0.5	79	0.6	81	0.6	79	0.5	67	0.4	65
23	0.4	67	0.3	71	0.3	73	0.3	81	0.3	81	0.2	81	0.3	81	0.3	79	0.2	80	0.2	80	0.2	80	0.2	80
24	0.2	80	0.3	81	0.3	82	0.3	81	0.3	81	0.2	80	0.2	80	0.3	75	0.3	74	0.2	73	0.3	75	0.2	76
25	0.2	76	0.2	75	0.2	78	0.2	73	0.2	78	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.3	79
26	0.3	79	0.3	76	0.3	77	0.2	79	0.2	80	0.3	76	0.3	74	0.3	79	0.2	79	0.2	79	0.2	79	0.2	79
27	0.3	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	79	0.2	78	0.2	77	0.2	78	0.2	79	0.3	80	0.3	81
28	0.3	80	0.3	82	0.3	81	0.3	79	0.2	80	0.2	79	0.2	79	0.3	73	0.3	65	0.3	64	0.3	66	0.3	69
29	0.2	72	0.2	72	0.3	70	0.2	71	0.2	76	0.2	78	0.2	78	0.2	77	0.2	78	0.2	78	0.2	78	0.2	77
30	0.2	76	0.2	76	0.2	76	0.2	77	0.2	80	0.2	78	0.2	78	0.1	78	0.2	78	0.1	78	0.1	79	0.1	78
Mean	0.46	76.4	0.46	75.5	0.46	75.4	0.47	75.7	0.46	77.7	0.46	75.8	0.46	74.6	0.45	73.9	0.45	73.7	0.43	74.3	0.44	74.7	0.44	75.3

1899. December.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.1	78	0.1	78	0.2	79	0.2	79	0.2	78	0.2	78	0.2	78	0.2	78	0.2	78	0.2	77	0.2	77	0.2	78
2	0.2	79	0.2	80	0.2	79	0.2	79	0.2	78	0.2	77	0.2	77	0.2	80	0.2	79	0.3	79	0.3	79	0.2	79
3	0.2	79	0.3	81	0.3	81	0.2	80	0.2	79	0.3	80	0.3	80	0.3	81	0.3	80	0.2	79	0.2	79	0.2	78
4	0.2	78	0.2	78	0.2	79	0.3	80	0.3	81	0.3	73	0.3	79	0.2	78	0.3	79	0.2	79	0.2	80	0.2	80
5	0.2	80	0.2	79	0.2	80	0.2	80	0.3	80	0.3	81	0.4	77	0.4	79	0.4	83	0.4	83	0.3	83	0.3	81
6	0.4	82	0.4	83	0.4	83	0.4	82	0.4	84	0.4	83	0.4	82	0.3	81	0.3	82	0.3	83	0.4	83	0.4	85
7	0.5	85	0.4	79	0.4	77	0.4	77	0.3	78	0.4	79	0.3	78	0.3	76	0.3	78	0.2	79	0.3	81	0.3	80
8	0.2	80	0.2	80	0.2	80	0.2	80	0.2	80	0.3	81	0.3	81	0.2	80	0.3	79	0.3	79	0.3	79	0.4	79
9	0.3	78	0.3	79	0.3	80	0.3	81	0.3	81	0.3	81	0.2	81	0.3	81	0.3	81	0.4	81	0.3	80	0.3	82
10	0.3	84	0.3	86	0.2	83	0.2	81	0.3	81	0.3	81	0.3	81	0.3	82	0.3	83	0.3	82	0.2	80	0.2	79
11	0.1	78	0.2	79	0.2	79	0.1	78	0.3	81	0.2	81	0.3	77	0.2	77	0.2	78	0.2	79	0.2	80	0.2	80
12	0.2	80	0.2	79	0.2	80	0.2	79	0.3	62	0.3	67	0.3	61	0.2	59	0.2	60	0.2	61	0.3	55	0.2	63
13	0.3	63	0.3	56	0.3	55	0.3	48	0.3	54	0.5	55	0.3	56	0.3	59	0.3	61	0.3	66	0.3	71	0.4	68
14	0.3	75	0.3	76	0.4	77	0.2	80	0.2	73	0.2	78	0.2	80	0.2	82	0.2	81	0.2	80	0.2	80	0.2	81
15	0.2	80	0.2	81	0.2	80	0.3	80	0.3	80	0.2	80	0.2	80	0.2	80	0.2	80	0.2	80	0.3	80	0.3	80
16	0.3	80	0.3	80	0.3	80	0.4	81	0.4	82	0.4	74	0.4	69	0.4	65	0.4	63	0.3	63	0.3	76	0.3	80
17	0.4	80	0.4	81	0.3	82	0.4	80	0.4	80	0.4	81	0.4	80	0.2	79	0.2	81	0.2	80	0.2	79	0.2	84
18	0.2	81	0.2	77	0.2	75	0.3	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.2	78	0.1	78
19	0.1	78	0.2	78	0.1	77	0.1	78	0.2	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	77
20	0.1	77	0.1	77	0.1	77	0.1	76	0.1	76	0.2	78	0.1	77	0.1	76	0.2	78	0.2	77	0.2	79	0.2	78
21	0.2	74	0.2	79	0.2	73	0.2	75	0.3	75	0.2	77	0.2	80	0.1	78	0.1	78	0.2	78	0.1	78	0.1	76
22	0.1	77	0.1	76	0.1	75	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.3	78	0.2	73	0.1	79
23	0.2	70	0.2	77	0.2	73	0.5	76	0.5	70	0.5	64	0.6	66	0.5	55	0.5	55	0.6	61	0.6	62	0.7	70
24	0.7	80	1.0	90	0.9	85	0.9	78	0.9	79	1.0	90	1.0	91	1.0	91	1.1	90	1.0	89	1.0	88	1.0	87
25	1.2	92	1.2	93	1.3	92	1.3	90	1.1	86	0.7	75	0.6	68	0.7	69	0.4	82	0.4	83	0.4	84	0.4	84
26	0.4	85	0.4	86	0.4	86	0.4	87	0.4	86	0.3	86	0.2	84	0.4	85	0.3	85	0.4	87	0.7	80	0.9	83
27	0.8	87	0.9	77	0.8	72	0.9	75	0.9	75	1.0	74	0.9	79	0.9	73	1.2	79	0.8	82	1.5	78	1.8	81
28	2.4	69	2.3	65	2.4	65	2.5	65	2.6	79	2.4	83	2.5	91	2.4	90	2.2	92	2.2	91	1.8	93	1.5	93
29	1.4	92	1.5	92	1.3	91	1.3	91	1.4	92	1.7	92	2.0	92	1.9	92	2.0	89	1.6	92	1.7	92	1.3	92
30	1.8	93	1.5	92	1.3	92	1.0	91	1.2	92	1.1	91	1.4	92	0.9	91	0.8	92	0.9	92	0.8	91	0.8	93
31	0.7	90	0.9	92	0.9	90	0.9	89	0.6	88	0.5	72	0.8	83	0.9	80	0.8	81	0.8	80	0.8	88	0.7	90
Mean	0.47	80.3	0.49	80.3	0.47	79.4	0.48	79.2	0.49	79.1	0.45	78.5	0.50	78.6	0.47	77.9	0.47	78.9	0.45	79.5	0.47	79.6	0.46	80.7

1900. January.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Noon mm.	Noon p. c.	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Midt. mm.	Midt. p. c.
1	0.7	90	0.7	91	0.5	90	0.6	92	0.5	90	0.5	90	0.5	89	0.5	89	0.8	89	0.8	81	0.8	85	0.7	84
2	0.7	84	0.7	87	0.7	87	0.8	81	0.9	89	1.0	91	1.1	91	1.1	92	1.2	92	1.1	92	1.1	92	1.1	91
3	1.2	89	1.2	90	1.0	92	0.9	91	1.0	90	1.1	91	1.0	86	1.0	91	1.0	92	0.9	92	0.9	93	1.0	91
4	0.8	91	0.7	90	0.7	89	0.8	91	0.8	89	0.8	89	0.8	90	0.8	90	0.7	91	0.4	87	0.4	87	0.5	87
5	0.3	86	0.3	86	0.4	86	0.3	86	0.2	84	0.3	84	0.2	83	0.2	82	0.2	82	0.2	83	0.2	82	0.3	85
6	0.4	87	0.5	88	0.5	89	0.6	90	0.6	92	0.6	90	0.6	91	0.6	91	0.5	90	0.5	89	0.6	90	0.5	91
7	0.4	87	0.4	88	0.3	86	0.3	85	0.2	84	0.2	83	0.2	84	0.2	82	0.2	81	0.2	81	0.2	81	0.2	81
8	0.1	80	0.1	80	0.1	80	0.2	82	0.1	80	0.2	80	0.2	80	0.2	80	0.2	82	0.3	84	0.4	86	0.4	88
9	0.4	87	0.4	87	0.4	87	0.4	87	0.5	85	0.5	88	0.4	87	0.5	88	0.5	88	0.5	88	0.4	87	0.4	86
10	0.3	86	0.3	85	0.2	84	0.2	83	0.2	82	0.2	82	0.2	82	0.2	81	0.2	81	0.2	82	0.2	80	0.2	81
11	0.2	82	0.2	83	0.3	89	0.3	84	0.3	86	0.3	85	0.3	85	0.3	84	0.3	84	0.3	85	0.3	84	0.2	82
12	0.2	85	0.2	85	0.1	84	0.2	82	0.2	81	0.2	81	0.2	81	0.2	81	0.1	80	0.1	80	0.1	80	0.1	81
13	0.2	80	0.2	80	0.2	80	0.2	81	0.3	83	0.2	79	0.3	83	0.3	79	0.2	81	0.2	80	0.1	79	0.1	78
14	0.1	79	0.1	79	0.2	80	0.2	80	0.2	80	0.2	80	0.2	81	0.2	81	0.1	81	0.1	81	0.1	81	0.1	79
15	0.1	79	0.1	77	0.1	81	0.2	79	0.1	80	0.2	80	0.2	82	0.2	82	0.1	80	0.2	80	0.2	80	0.1	80
16	0.1	80	0.1	80	0.1	80	0.1	80	*0.2*	*75*	*0.1*	*70*	*0.1*	*65*	*0.1*	*60*	*0.1*	*55*	*0.1*	*50*	*0.1*	*45*	0.0	42
17	0.0	49	0.0	52	0.0	54	0.0	56	0.0	56	0.0	58	0.0	58	0.0	59	0.0	60	0.0	60	0.0	61	0.0	62
18	0.0	63	0.1	63	0.1	63	0.1	65	0.1	66	0.1	67	0.1	68	0.1	68	0.1	69	0.1	69	0.1	70	0.1	70
19	0.1	70	0.1	71	0.1	70	0.1	71	0.1	70	0.1	71	0.0	71	0.0	71	0.1	70	0.0	71	0.0	71	0.0	71
20	0.0	71	0.0	71	0.1	71	0.1	71	0.1	72	0.1	73	0.1	74	0.1	74	0.1	74	0.1	74	0.1	75	0.1	75
21	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	76	0.1	76	0.1	77	0.1	76
22	0.1	76	0.1	77	0.1	77	0.1	76	0.1	76	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	78	0.1	78
23	0.1	78	0.1	78	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	80	0.1	80	0.1	80	0.1	79
24	0.1	80	0.1	80	0.1	80	0.1	80	0.1	79	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	81
25	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	81	0.1	80	0.1	80
26	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	80	0.1	81	0.1	81	0.1	81	0.2	82	0.1	82	0.2	83
27	0.3	85	0.3	87	0.3	87	0.3	83	0.3	88	0.2	88	0.2	87	0.3	89	0.3	90	0.3	91	0.4	92	0.3	91
28	0.3	91	0.3	91	0.3	92	0.3	92	0.3	92	0.3	91	0.3	91	0.3	91	0.2	91	0.2	91	0.2	91	0.3	91
29	0.3	92	0.3	91	0.3	91	0.2	91	0.3	91	0.3	90	0.3	90	0.3	90	0.3	89	0.3	89	0.3	85	0.3	83
30	0.2	85	0.3	85	0.3	85	0.3	86	0.3	87	0.3	85	0.3	89	0.3	87	0.3	85	0.3	86	0.3	87	0.3	89
31	0.2	90	0.2	91	0.3	91	0.3	89	0.2	90	0.2	91	0.2	88	0.2	89	0.2	89	0.2	89	0.1	89	0.2	89
Mean	0.26	81.3	0.27	81.7	0.26	82.0	0.28	81.7	0.27	81.8	0.28	81.8	0.28	81.8	0.28	81.6	0.28	81.4	0.27	81.2	0.26	81.1	0.26	81.0

1900. February.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	89	0.2	89	0.1	88	0.2	89	0.2	89	0.2	90	0.3	90	0.3	91	0.3	92	0.5	92	0.6	94	0.6	96
2	0.7	95	0.7	90	0.7	75	1.1	62	0.8	65	0.9	66	1.6	60	1.1	60	1.0	73	1.0	74	1.1	78	1.3	79
3	1.4	79	1.5	75	1.4	62	1.4	52	1.6	59	1.7	72	1.7	72	1.9	72	*2.0*	*68*	2.1	63	2.1	61	1.8	52
4	2.0	74	2.3	90	2.3	80	*2.2*	*78*	*2.1*	*75*	2.0	73	1.9	67	2.2	72	2.2	77	2.1	83	2.2	77	2.2	86
5	2.2	91	2.4	86	2.1	82	1.4	72	1.5	67	2.1	67	1.9	67	1.9	70	1.5	87	1.6	85	1.6	82	1.3	73
6	1.1	75	1.1	79	1.2	91	1.2	92	1.1	91	0.8	88	0.8	92	0.7	94	0.7	94	0.6	95	0.7	95	0.7	92
7	0.7	92	0.8	85	0.7	88	0.8	89	0.8	87	0.8	87	1.0	71	1.2	76	1.5	78	2.4	74	2.3	72	2.5	78
8	2.1	61	2.3	67	2.5	68	2.3	79	2.9	87	3.2	83	3.2	82	3.6	86	2.7	93	2.5	90	2.4	97	2.6	98
9	2.9	98	2.3	81	2.4	81	2.8	88	3.2	89	3.3	92	3.7	89	3.7	78	3.7	78	3.6	76	3.7	83	3.6	82
10	3.6	91	3.7	82	3.1	74	2.8	85	2.8	94	2.6	96	2.7	99	2.7	99	2.4	100	2.3	99	2.3	99	1.9	100
11	1.9	100	2.0	100	2.0	100	1.9	100	2.0	100	1.7	98	1.4	98	1.1	99	1.1	98	*1.1*	*98*	*1.1*	*98*	*1.1*	*98*
12																								
13																								
14																								
15																							0.3	72
16	0.2	75	0.2	72	0.2	73	0.2	73	1.9	72	0.2	72	0.2	74	0.2	75	0.2	75	0.2	75	0.2	74	0.2	74
17	0.2	74	0.2	75	0.2	72	0.2	69	0.2	75	0.2	74	0.2	75	0.2	75	0.2	75	0.2	75	0.2	75	0.2	75
18	0.2	75	0.2	75	0.2	75	0.2	76	0.2	76	0.2	77	0.3	76	0.3	73	0.3	76	0.3	77	0.2	76	0.2	77
19	0.3	77	0.4	79	0.4	79	0.4	79	0.5	80	0.5	80	0.5	80	0.7	60	0.6	71	0.8	83	0.8	81	0.9	86
20	0.8	87	0.8	86	0.8	87	0.8	86	0.7	84	0.7	85	0.5	83	0.4	84	0.4	84	0.4	84	0.3	81	0.3	82
21	0.2	81	0.3	81	0.3	81	0.3	82	0.4	82	0.4	80	0.4	79	0.4	81	0.4	79	0.4	81	0.4	81	0.4	80
22	0.4	81	0.5	81	0.5	82	0.7	80	0.6	76	0.6	76	0.5	81	0.5	81	0.5	82	0.5	83	0.5	81	0.5	83
23	0.4	84	0.4	83	0.3	82	0.3	81	0.3	80	0.2	80	0.2	80	0.2	79	0.2	80	0.2	79	0.1	78	0.1	77
24	0.1	77	0.1	78	0.1	78	0.1	78	0.2	78	0.2	78	0.2	78	0.2	78	0.2	79	0.2	78	0.2	78	0.2	79
25	0.2	79	0.2	78	0.2	78	0.1	78	0.1	78	0.1	77	0.2	78	0.3	78	0.1	77	0.1	77	0.1	77	0.1	77
26	0.1	77	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76	0.1	76
27	0.1	76	0.1	76	0.1	77	0.2	79	0.2	79	0.2	80	0.3	80	0.2	80	0.2	80	0.2	79	0.3	80	0.3	80
28	0.3	80	0.3	79	0.3	80	0.3	79	0.3	80	0.4	79	0.4	80	0.4	80	0.4	78	0.4	76	0.4	74	0.4	73
Mean	0.93	82.2	0.96	81.1	0.93	79.7	0.92	79.4	1.03	80.2	0.97	80.4	1.01	79.6	1.02	79.1	0.95	81.3	0.99	81.5	1.00	81.3	0.94	80.0

1900. March.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.4	72	0.4	78	0.4	79	0.4	80	0.4	80	0.4	79	0.4	80	0.4	80	0.4	77	0.4	79	0.3	79	0.3	78
2	0.3	77	0.2	76	0.2	73	0.2	70	0.2	70	0.2	68	0.2	72	0.2	72	0.2	76	0.1	76	0.1	76	0.1	76
3	0.1	76	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.2	76	0.1	76	0.1	76	0.1	76	0.1	75
4	0.1	75	0.2	76	0.1	75	0.2	77	0.1	76	0.1	76	0.1	76	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75
5	0.1	74	0.1	74	0.1	74	0.1	75	0.1	74	0.1	75	0.1	75	0.1	75	0.1	76	0.1	77	0.1	77	0.1	76
6	0.1	76	0.1	77	0.1	77	0.1	77	0.2	77	0.2	78	0.2	78	0.2	78	0.3	78	0.4	80	0.8	84	1.1	56
7	0.9	57	0.8	57	0.8	63	0.7	68	0.6	72	0.7	47	0.7	42	0.6	43	0.6	55	0.7	54	0.7	51	0.7	55
8	0.6	59	0.9	75	0.9	79	0.8	80	0.7	78	0.6	77	0.7	81	0.5	80	0.5	81	0.4	82	0.5	79	0.4	64
9	0.4	54	0.4	54	0.5	62	0.5	54	0.3	55	0.5	50	0.5	54	0.5	55	0.5	57	0.5	62	0.4	62	0.3	66
10	0.3	73	0.2	76	0.3	78	0.2	79	0.2	79	0.2	76	0.2	78	0.2	78	0.2	78	0.2	79	0.2	79	0.2	78
11	0.1	78	0.2	78	0.1	78	0.1	78	0.1	77	0.2	78	0.1	78	0.2	78	0.1	78	0.1	77	0.1	77	0.1	76
12	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.2	78	0.3	78	0.2	78	0.1	78	0.1	78	0.1	78	0.2	79
13	0.2	78	0.2	78	0.2	78	0.1	78	0.1	78	0.2	78	0.2	78	0.2	78	0.1	78	0.1	78	0.1	78	0.2	78
14	0.1	78	0.1	78	0.1	77	0.2	78	0.1	78	0.2	78	0.1	79	0.3	79	0.2	80	0.3	81	0.3	81	0.4	82
15	0.3	82	0.4	82	0.3	82	0.4	78	0.4	74	0.4	72	0.4	72	0.4	72	0.4	74	0.4	74	0.4	75	0.5	76
16	0.5	74	0.5	73	0.5	73	0.5	72	0.5	72	0.6	71	0.6	69	0.6	70	0.6	71	0.7	73	0.7	73	0.7	74
17	0.7	73	0.7	74	0.9	75	0.8	77	0.9	76	0.9	76	0.8	74	0.8	70	0.8	70	0.9	64	0.8	53	0.8	46
18	0.8	45	0.8	45	0.7	45	0.7	46	0.8	47	0.8	46	0.8	47	0.8	49	0.8	47	0.7	47	0.6	49	0.6	58
19	0.5	71	0.5	79	0.6	81	0.7	82	0.7	82	0.7	80	0.8	79	0.8	82	0.7	80	0.6	83	0.5	89	0.5	85
20	0.5	80	0.4	67	0.4	65	0.4	65	0.6	64	0.4	49	0.4	46	0.3	42	0.4	45	0.4	49	0.4	51	0.4	47
21	0.4	47	0.4	47	0.4	51	0.5	49	0.5	54	0.6	59	0.6	59	0.6	69	0.6	71	0.6	76	0.5	82	0.5	84
22	0.5	85	0.5	85	0.4	85	0.4	86	0.4	85	0.5	83	0.5	81	0.5	78	0.4	81	0.4	84	0.3	85	0.3	84
23	0.4	85	0.3	85	0.3	85	0.3	84	0.4	80	0.4	79	0.5	76	0.5	78	0.5	79	0.5	79	0.4	82	0.4	82
24	0.4	82	0.5	76	0.5	75	0.6	75	0.7	78	0.7	78	0.8	79	0.8	86	0.8	90	0.8	92	0.7	91	0.8	91
25	0.8	91	0.9	91	0.8	90	0.7	89	0.7	87	0.7	87	0.7	82	0.8	87	0.8	90	0.8	91	0.9	92	0.9	91
26	0.9	90	1.1	88	0.9	80	0.7	74	0.7	73	0.7	72	0.7	71	0.7	73	0.6	75	0.6	81	0.4	87	0.4	87
27	0.3	86	0.3	86	0.3	85	0.4	85	0.5	86	0.5	84	0.5	75	0.5	77	0.4	82	0.4	87	0.4	86	0.3	86
28	0.3	86	0.3	86	0.3	85	0.3	85	0.4	86	0.5	87	0.5	87	0.4	86	0.4	86	0.3	86	0.2	85	0.3	85
29	0.3	85	0.3	86	0.3	85	0.3	84	0.3	85	0.4	84	0.4	80	0.4	79	0.3	80	0.3	80	0.4	57	0.4	63
30	0.3	68	0.4	57	0.4	53	0.4	52	0.4	50	0.4	58	0.4	69	0.3	74	0.4	58	0.3	57	0.3	54	0.2	55
31	0.2	54	0.2	54	0.2	54	0.2	52	0.2	52	0.2	42	0.2	50	0.2	48	0.2	50	0.2	53	0.2	56	0.2	57
Mean	0.42	74.0	0.40	74.0	0.39	74.2	0.39	73.7	0.40	73.6	0.43	71.8	0.44	71.7	0.43	72.7	0.40	73.5	0.40	74.7	0.39	74.3	0.40	73.6

1900. April.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	59	0.2	60	0.1	61	0.1	63	0.2	61	0.2	59	0.2	66	0.2	66	0.2	68	0.2	70	0.1	73	0.1	75
2	0.1	76	0.1	76	0.1	76	0.1	77	0.2	77	0.2	70	0.3	70	0.2	69	0.2	71	0.2	75	0.2	76	0.1	76
3	0.1	77	0.1	77	0.1	77	0.1	78	0.2	78	0.2	75	0.2	73	0.3	69	0.3	69	0.2	76	0.2	76	0.1	76
4	0.2	78	0.1	78	0.2	79	0.2	78	0.3	75	0.4	69	0.4	70	0.4	73	0.4	75	0.4	80	0.4	84	0.4	84
5	0.5	82	0.4	81	0.4	81	0.4	79	0.4	79	0.6	79	0.6	78	0.6	82	0.5	82	0.5	85	0.4	87	0.4	87
6	0.3	87	0.3	87	0.3	85	0.3	85	0.4	79	0.4	75	0.3	74	0.3	70	0.3	67	0.2	76	0.2	80	0.2	81
7	0.2	80	*0.2*	*81*	0.2	82	0.2	86	0.3	79	0.4	77	0.5	74	0.4	73	0.4	69	0.3	77	0.4	79	0.4	82
8	0.4	79	0.4	76	0.4	78	0.5	75	0.5	69	0.5	60	0.6	60	0.6	60	0.6	65	0.5	70	0.6	70	0.7	67
9	0.8	71	0.9	80	0.9	86	0.9	90	1.2	90	1.3	89	1.3	94	1.4	93	1.4	94	1.7	90	1.8	90	1.4	86
10	1.3	84	1.1	80	0.8	77	0.9	78	0.7	76	0.7	73	0.7	73	0.6	59	0.7	60	0.7	65	0.7	64	0.7	65
11	0.7	60	0.5	50	0.6	63	0.5	77	0.5	78	0.5	80	0.6	78	0.7	80	0.6	82	0.6	86	0.7	87	0.6	90
12	0.5	89	0.5	88	0.5	64	0.5	61	0.5	63	0.5	60	0.9	55	0.6	57	0.6	56	0.6	55	0.6	60	0.5	50
13	0.5	55	*0.5*	*54*	*0.6*	*54*	0.6	53	*0.6*	*53*	0.6	53	0.6	47	0.6	46	0.6	45	0.6	49	0.6	48	0.6	50
14	0.6	49	0.5	46	0.6	43	0.6	45	0.6	41	0.5	54	0.6	66	0.7	76	0.7	81	0.7	87	0.7	86	0.6	92
15	0.6	92	0.7	93	0.7	92	0.7	88	0.8	79	0.8	88	0.9	88	0.9	80	0.8	82	0.7	87	0.9	95	0.6	93
16	0.5	93	0.5	93	0.5	93	0.6	92	0.6	91	0.6	85	0.7	74	0.6	85	0.6	76	0.5	88	0.5	93	0.4	90
17	0.4	90	0.3	89	0.4	90	0.5	90	0.5	92	0.9	92	0.8	81	1.0	86	1.2	90	1.3	100	1.2	98	1.2	98
18	1.1	98	1.1	93	1.1	90	1.2	80	1.2	80	1.3	85	1.3	85	1.2	86	1.1	82	1.0	81	0.9	82	0.9	82
19	0.9	90	0.9	92	*1.0*	*92*	1.0	91	1.0	84	1.0	82	1.2	89	1.1	89	1.1	89	1.0	90	0.9	93	0.9	91
20	1.0	91	1.0	93	1.1	96	1.1	93	1.1	87	1.2	77	1.2	78	1.2	85	1.2	85	1.1	86	1.1	82	1.2	89
21	1.1	88	1.1	88	1.0	90	1.1	88	1.0	86	1.0	85	1.1	78	1.0	85	1.0	76	0.8	84	0.5	92	0.5	92
22	0.4	92	0.4	92	0.4	91	0.5	91	0.8	90	0.9	75	0.4	79	0.9	74	0.8	75	0.7	77	0.7	90	0.6	93
23	0.6	90	0.6	85	0.6	87	0.7	78	1.0	77	1.0	74	1.1	76	1.2	76	1.4	93	1.5	97	1.6	100	1.7	100
24	1.6	98	1.7	96	1.7	96	1.6	97	1.8	94	1.9	86	1.8	87	1.8	90	1.9	96	1.9	96	1.9	100	1.8	99
25	1.7	91	1.8	96	1.6	94	1.7	94	1.8	86	1.8	86	1.9	90	1.8	90	1.7	86	1.4	94	1.5	97	1.3	99
26	1.3	97	1.1	98	1.1	97	1.2	96	1.2	85	1.4	78	1.4	87	1.2	89	1.3	90	1.1	93	0.8	96	0.6	93
27	0.7	90	0.5	89	0.4	89	0.5	89	0.7	91	0.8	93	0.6	72	0.8	75	0.7	75	0.5	81	0.4	90	0.4	89
28	0.3	89	0.2	87	0.3	87	0.4	88	0.4	90	0.6	90	0.6	91	*0.6*	*89*	*0.5*	*88*	*0.5*	*87*	0.4	85	0.4	83
29	0.4	85	0.7	88	0.9	90	1.1	86	0.9	71	1.1	72	1.2	72	1.2	74	1.3	73	1.2	77	1.2	81	1.2	81
30	1.0	88	0.9	91	1.2	84	1.1	76	1.3	77	1.5	74	1.7	80	1.7	74	1.8	80	1.5	78	1.6	85	1.5	86
Mean	0.67	83.1	0.64	82.7	0.66	82.2	0.70	81.6	0.78	78.8	0.83	76.6	0.86	76.3	0.89	76.8	0.86	77.5	0.80	81.3	0.79	84.1	0.73	84.1

1900. May.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.2	85	1.2	86	1.2	84	1.3	81	1.1	79	1.1	80	1.1	75	1.1	77	1.1	76	1.1	82	1.1	81	1.0	80
2	0.9	85	0.9	83	1.0	84	1.1	77	1.1	69	1.1	65	1.0	75	1.0	74	1.0	80	*1.0*	*80*	1.1	81	1.1	82
3	1.0	83	1.1	82	1.1	80	1.2	76	1.3	67	1.3	62	1.2	60	1.3	63	1.4	66	1.3	62	1.4	62	1.4	66
4	1.4	62	1.5	58	1.4	55	1.6	62	1.6	61	1.5	55	1.6	53	1.7	56	1.4	45	1.8	60	1.9	58	1.6	50
5	1.4	45	*1.4*	*43*	*1.4*	*42*	1.4	40	1.5	41	1.6	41	1.6	42	1.7	45	1.7	45	1.7	47	1.8	51	1.6	57
6	1.4	60	1.1	59	1.4	56	1.5	51	1.3	40	1.4	39	1.7	49	1.7	50	1.7	50	1.6	49	1.4	51	1.5	58
7	*1.5*	*52*	1.5	47	*1.6*	*51*	1.8	55	1.7	54	1.9	53	1.9	54	2.0	58	2.2	64	2.1	61	1.8	54	1.8	53
8	2.1	59	2.7	86	2.7	91	2.3	79	2.2	71	2.6	60	2.2	64	2.4	70	2.4	76	2.5	80	2.6	90	2.7	94
9	2.6	94	*2.6*	*94*	*2.7*	*94*	2.7	93	2.5	86	2.6	72	2.4	77	2.8	67	2.5	70	2.0	73	1.8	80	2.0	70
10	1.4	70	1.4	67	1.6	68	1.6	64	1.8	69	1.8	68	2.2	72	1.9	75	2.1	70	1.7	76	1.5	85	1.5	90
11	1.2	86	1.0	92	1.0	85	1.3	75	1.4	81	1.4	81	1.6	84	1.6	83	1.5	81	1.4	82	1.2	90	1.0	93
12	0.9	97	1.1	98	1.0	95	1.2	83	1.3	89	1.5	83	1.6	80	1.7	82	1.8	84	1.8	86	1.5	87	1.3	94
13	1.1	95	1.0	95	1.1	85	*1.3*	*80*	1.6	75	1.7	80	1.9	80	2.2	80	2.2	78	1.9	86	1.6	87	1.9	90
14	2.0	89	2.1	88	2.2	83	2.2	85	2.4	80	2.4	85	2.6	80	2.8	81	2.8	86	2.9	88	2.8	88	2.8	89
15	2.8	86	2.8	87	2.6	90	2.8	88	2.9	78	3.0	74	3.2	83	3.3	88	3.3	88	3.2	89	3.3	95	3.5	100
16	3.4	100	3.4	98	3.3	95	3.5	98	3.5	86	3.6	88	3.8	93	3.8	97	3.2	95	2.7	88	2.7	90	2.5	89
17	2.4	93	2.4	91	2.3	93	2.3	89	2.2	86	2.3	85	2.3	86	2.4	85	2.4	85	2.5	89	2.2	77	2.2	83
18	2.1	76	2.2	77	2.0	75	2.0	67	2.1	67	2.2	73	2.4	75	3.4	82	3.6	86	3.6	87	3.6	88	3.3	85
19	3.4	96	3.4	97	3.4	98	3.5	90	3.2	92	3.3	96	3.3	88	3.1	86	2.7	86	2.0	78	1.5	73	1.4	76
20	1.3	74	1.0	66	1.1	72	1.1	71	1.2	69	1.4	63	1.2	64	1.2	65	1.1	63	1.2	60	1.2	64	1.3	73
21	1.4	75	1.4	73	1.3	68	1.3	67	1.3	68	1.4	65	1.4	51	1.4	63	1.3	68	1.3	67	1.3	76	1.2	81
22	1.1	85	1.1	79	1.2	74	1.4	65	1.5	81	1.8	84	2.0	85	2.3	81	2.2	91	2.4	94	2.3	97	2.4	97
23	2.8	95	*2.7*	*92*	2.6	90	2.4	90	2.2	89	2.0	85	1.9	76	1.8	78	1.3	69	1.3	69	1.0	77	1.0	79
24	1.1	81	*1.2*	*80*	1.3	78	1.2	73	1.2	70	1.2	65	1.2	66	1.4	60	1.2	58	1.1	67	0.9	75	0.9	78
25	0.8	81	0.7	80	0.9	81	1.0	65	1.2	70	1.3	68	1.3	57	1.4	63	1.3	59	1.3	60	1.1	69	0.9	80
26	0.8	84	*0.8*	*80*	0.9	74	1.0	79	1.2	74	1.3	76	1.4	73	1.5	66	1.7	65	1.5	53	1.2	66	1.1	68
27	1.6	68	1.2	69	1.4	60	1.5	60	1.6	57	1.7	51	1.8	51	1.7	50	1.7	54	1.4	55	1.3	61	1.3	64
28	1.3	66	1.2	68	1.4	65	1.6	61	1.7	59	1.9	55	1.8	64	2.0	68	2.2	70	2.1	84	1.7	89	1.6	89
29	1.5	95	1.8	95	1.7	75	2.0	68	2.1	71	2.4	53	2.6	71	2.7	72	2.8	78	2.8	81	2.7	83	2.7	86
30	2.3	88	1.9	85	2.2	86	2.1	81	2.6	70	2.5	54	2.4	58	2.8	68	3.0	82	2.8	68	2.6	70	2.6	69
31	2.8	84	*2.8*	*80*	2.8	75	2.9	71	2.6	63	3.6	95	3.3	78	2.8	63	2.7	59	2.8	58	2.6	57	3.1	65
Mean	1.71	80.4	1.70	80.0	1.74	77.6	1.81	73.7	1.84	71.6	1.96	69.6	2.00	70.0	2.10	71.0	2.05	72.0	1.96	73.0	1.83	76.0	1.81	78.4

1900. June.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Noon mm.	Noon p. c.	2h mm.	2h p. c.	4h mm.	4h p. c.	6h mm.	6h p. c.	8h mm.	8h p. c.	10h mm.	10h p. c.	Midt. mm.	Midt. p. c.
1	3.0	61	2.7	60	3.2	65	3.2	69	4.0	83	4.1	83	3.9	90	4.0	81	4.0	86	4.0	86	4.1	87	4.1	92
2	4.3	94	4.5	98	4.3	94	4.4	93	4.3	88	4.6	90	4.4	77	4.8	94	4.8	97	4.4	96	4.6	96	4.7	99
3	4.7	97	4.5	98	4.2	94	4.5	90	4.8	88	4.8	90	4.7	92	4.9	96	4.8	97	5.0	96	4.8	97	4.6	93
4	4.6	98	4.7	99	4.4	95	4.3	100	4.0	96	3.9	84	3.8	89	3.7	86	3.8	88	3.8	87	3.8	90	3.7	87
5	3.7	87	3.7	87	4.0	91	3.8	85	4.2	88	4.0	86	4.5	90	4.3	88	4.5	94	4.0	81	4.0	80	4.1	86
6	4.2	87	4.3	91	4.2	90	4.5	91	4.5	90	4.3	82	4.1	78	4.1	79	4.5	86	4.5	95	4.5	92	4.5	96
7	4.4	95	4.3	92	4.4	90	4.8	90	4.5	86	4.6	86	4.4	80	4.4	81	4.6	95	4.4	92	4.4	88	4.6	95
8	4.6	97	4.2	96	4.4	90	4.5	81	4.2	77	4.5	91	4.2	75	4.1	68	4.5	86	4.0	71	4.0	84	3.5	95
9	3.1	99	3.1	98	3.4	98	3.2	83	3.5	80	4.2	89	4.2	90	4.0	72	3.7	73	4.3	88	3.7	86	3.7	93
10	3.2	96	3.4	97	3.0	76	3.7	90	4.0	89	4.0	80	4.3	89	4.2	77	4.1	78	4.1	86	3.7	86	3.9	91
11	3.9	90	3.7	94	3.6	82	4.0	81	4.1	85	4.5	83	3.7	60	3.9	70	4.3	68	3.9	69	4.2	81	4.2	84
12	4.4	89	*4.4*	*88*	4.4	87	4.0	67	4.2	71	4.2	65	4.2	71	4.1	73	4.1	74	4.1	78	4.3	83	4.6	88
13	4.5	91	4.7	97	4.8	98	4.9	95	5.0	97	5.0	99	4.7	98	4.4	89	4.3	84	4.4	89	4.5	91	4.3	86
14	4.4	91	4.5	94	4.5	94	4.4	89	4.5	87	4.5	91	4.7	89	4.7	95	4.8	98	4.9	100	4.7	95	4.6	98
15	4.8	99	4.9	100	4.7	94	4.5	83	4.8	100	4.7	91	3.7	72	3.1	63	3.2	63	3.1	65	3.1	65	2.8	64
16	3.0	72	3.2	77	3.4	87	3.2	78	3.3	79	3.5	84	3.3	71	3.3	68	3.0	60	3.1	67	2.8	61	2.5	65
17	2.2	66	2.6	75	2.8	70	3.0	66	3.1	67	2.7	56	2.5	48	2.7	50	2.7	49	2.8	55	2.9	55	2.8	54
18	2.8	52	2.7	51	3.0	60	3.1	58	3.1	59	3.1	59	3.3	60	3.2	58	3.0	52	3.2	57	2.6	49	2.2	62
19	2.5	61	2.6	61	2.6	54	3.4	70	3.1	55	3.0	49	3.1	45	2.8	49	3.2	60	2.8	52	2.9	56	2.9	62
20	3.1	64	3.1	75	3.2	70	3.1	62	3.2	65	3.3	64	3.3	64	3.3	64	3.1	67	3.2	72	2.8	73	3.9	93
21	3.9	94	4.0	96	4.0	90	4.5	94	4.7	97	4.8	93	4.8	89	4.6	80	4.9	89	4.9	86	4.9	98	5.0	97
22	4.7	85	5.0	93	4.8	90	4.9	97	5.0	94	4.8	85	4.9	92	4.9	93	5.0	99	4.9	99	4.9	99	4.9	99
23	4.9	100	3.8	63	4.0	73	4.6	88	5.1	70	3.6	52	3.7	53	3.1	48	3.5	47	3.5	49	3.3	48	3.3	49
24	2.3	38	3.2	50	3.1	48	3.2	48	3.7	53	3.7	54	3.6	54	3.3	50	3.5	57	3.8	72	3.9	72	4.0	81
25	3.8	70	3.9	60	3.9	56	3.8	52	3.8	55	3.8	48	3.7	46	3.7	44	3.9	44	3.7	44	3.5	46	3.8	51
26	3.8	58	3.4	58	3.9	58	3.9	53	4.2	45	3.9	44	4.0	60	4.6	69	4.4	62	4.7	60	4.3	60	4.4	61
27	4.6	63	4.6	58	4.5	54	4.7	48	4.8	82	4.6	83	4.8	72	4.7	85	4.8	91	4.7	94	4.8	85	4.7	90
28	4.5	89	4.4	97	4.4	91	4.5	95	4.6	92	4.8	94	5.0	93	4.6	75	4.4	87	4.3	94	4.5	92	4.3	96
29	4.1	98	4.0	96	4.2	85	4.5	90	4.5	90	4.5	90	4.7	87	4.8	87	4.8	87	4.8	86	4.6	86	*4.3*	*91*
30	4.0	96	4.1	96	4.7	88	4.7	86	4.7	83	5.1	61	4.2	60	4.8	60	4.7	58	5.1	60	4.7	71	5.6	63
Mean	3.87	82.7	3.87	83.3	3.93	80.5	4.06	79.3	4.18	79.8	4.17	77.0	4.08	80.0	4.04	73.2	4.10	76.0	4.08	77.7	3.99	78.6	4.02	82.2

1900. July.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	4.9	78	5.0	80	5.0	80	5.0	80	5.0	76	5.0	74	4.9	70	4.6	66	4.7	69	4.5	78	4.4	84	4.5	87
2	4.5	93	4.4	92	4.7	90	4.9	80	4.8	84	4.7	81	4.8	80	4.9	71	5.1	72	5.0	76	4.7	92	4.7	90
3	4.8	89	4.7	87	4.8	89	4.9	86	4.8	85	4.7	77	4.3	52	4.3	55	4.5	59	4.4	61	5.3	77	4.4	87
4	4.3	89	4.1	85	4.4	87	4.2	83	4.5	80	4.4	70	4.2	56	4.2	56	5.2	71	5.2	96	4.6	84	4.3	71
5	4.3	77	4.7	84	4.7	84	4.7	85	5.0	82	4.6	77	4.7	84	4.9	85	4.8	72	4.7	83	4.7	63	4.8	67
6	4.6	61	4.6	60	4.7	71	5.0	74	5.1	85	5.1	78	5.0	78	4.9	89	4.7	93	4.7	94	4.7	96	4.6	92
7	4.7	96	4.9	96	5.1	96	4.7	96	5.0	91	4.9	91	4.8	87	4.7	81	4.7	78	4.8	85	4.7	85	4.8	91
8	4.7	94	4.7	94	4.6	92	4.7	94	4.7	87	4.7	82	4.7	82	4.9	89	4.8	87	5.1	74	4.9	83	4.8	87
9	4.7	91	4.7	93	4.7	94	4.9	87	4.9	91	5.2	87	5.2	85	5.1	74	5.1	78	4.9	79	4.9	61	4.9	64
10	4.6	61	5.1	78	5.0	89	4.8	91	4.8	91	4.9	93	4.7	96	4.7	100	4.7	96	4.6	96	4.6	98	4.6	98
11	4.5	91	4.7	96	4.5	92	4.7	92	4.6	92	4.7	93	4.7	94	4.7	90	4.7	90	4.7	89	4.8	94	*4.9*	*96*
12	4.7	96	4.7	96	4.6	96	4.4	89	4.5	89	4.7	91	4.5	85	4.8	85	4.6	92	4.7	93	4.3	94	4.2	90
13	4.2	90	4.5	98	4.5	100	4.4	100	4.4	87	4.6	82	4.2	56	4.5	59	4.6	62	5.6	79	5.6	89	4.8	83
14	4.7	82	4.7	83	4.5	62	4.4	68	4.9	76	4.8	84	4.9	87	4.5	82	4.8	94	4.5	89	4.7	96	4.7	92
15	4.7	96	4.8	100	4.8	100	4.9	96	5.1	90	5.5	89	4.6	75	4.6	80	4.5	92	4.5	75	4.8	85	5.3	85
16	5.0	68	4.5	74	4.6	65	4.6	77	4.6	82	4.7	77	4.8	78	4.5	69	4.7	78	4.9	83	4.7	83	4.8	83
17	5.0	87	4.8	85	4.8	87	4.8	89	5.0	85	5.0	82	4.9	82	5.0	75	5.0	85	4.8	83	5.2	65	*5.0*	*72*
18	4.9	80	4.8	83	4.8	82	4.5	84	4.5	77	5.0	75	5.1	71	4.7	80	4.1	73	4.8	84	4.8	91	4.5	90
19	4.4	100	4.2	94	4.1	55	4.3	56	4.7	60	5.0	91	5.0	91	4.9	91	4.7	93	4.7	93	4.7	89	4.3	87
20	4.3	87	4.6	84	4.8	86	4.8	77	5.5	76	4.7	74	4.8	85	4.7	85	4.7	85	4.9	85	4.8	91	4.9	89
21	4.8	96	4.6	98	4.7	96	5.0	85	4.9	93	5.0	85	5.2	80	5.7	66	5.3	68	6.5	88	5.1	82	4.9	87
22	4.7	90	5.5	83	5.3	81	4.9	76	5.3	81	5.1	81	5.2	72	5.2	68	5.2	72	4.9	69	5.0	78	4.9	83
23	4.7	87	4.9	88	5.3	80	4.9	88	4.8	89	4.9	86	4.9	83	5.0	83	4.9	83	4.8	85	4.7	91	4.9	87
24	4.8	87	4.7	89	4.9	83	5.1	87	5.2	82	5.0	85	4.9	87	5.1	79	5.3	75	5.2	67	5.1	77	4.9	87
25	4.9	93	4.7	93	5.4	93	5.0	85	5.2	84	5.1	76	4.9	57	4.8	56	5.1	63	5.0	67	5.2	82	4.9	87
26	4.7	91	4.4	96	4.3	92	4.1	87	4.6	87	4.7	87	4.8	78	5.1	84	5.0	93	4.8	91	4.6	90	4.7	91
27	4.7	96	4.7	96	4.9	96	4.8	91	4.5	85	4.7	87	4.7	85	4.7	80	4.7	83	4.3	77	4.6	91	4.7	90
28	4.6	96	4.3	94	4.5	89	4.6	92	4.7	84	4.6	71	4.5	68	4.9	80	4.5	82	4.5	80	4.4	78	4.6	91
29	*4.6*	*88*	4.7	85	4.6	84	4.5	73	4.6	73	4.7	72	5.2	77	4.9	75	4.7	73	4.8	72	5.2	81	5.2	90
30	5.4	86	4.9	93	5.1	96	5.0	93	5.1	94	5.2	90	5.2	94	5.1	87	5.3	88	4.9	93	4.9	93	4.9	96
31	4.8	98	5.0	100	5.1	96	5.0	96	5.1	96	5.1	93	5.0	91	5.1	90	4.9	89	4.9	89	4.9	89	4.9	93
Mean	4.68	87.5	4.70	88.9	4.77	86.5	4.73	85.1	4.85	84.3	4.90	82.6	4.82	78.9	4.83	77.7	4.83	80.3	4.86	82.4	4.83	84.9	4.43	86.5

1900. August.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	5.1	94	5.1	90	5.0	91	4.9	89	4.8	80	4.9	87	5.0	93	5.0	80	4.9	82	4.9	87	4.8	83	4.9	89
2	4.9	94	4.6	92	4.7	93	4.8	89	4.6	90	4.4	85	4.6	85	4.3	68	5.4	92	5.6	90	4.4	85	4.2	78
3	4.0	78	4.2	90	4.1	89	4.1	89	4.0	80	3.8	65	3.6	61	3.6	59	3.5	56	3.4	56	3.9	69	3.8	72
4	4.1	89	4.5	98	4.3	92	4.2	77	3.7	63	3.4	57	3.2	53	3.1	52	3.6	58	3.7	65	3.8	74	4.0	79
5	2.7	43	6.1	44	6.6	45	3.1	46	3.5	47	3.4	44	4.5	57	4.2	55	6.4	85	5.4	74	5.7	83	7.1	99
6	7.1	99	5.9	82	5.1	88	5.2	88	4.9	83	4.8	79	4.8	77	4.9	75	4.9	78	5.3	88	4.9	89	4.6	94
7	4.4	96	4.3	94	4.2	90	4.4	92	4.5	91	4.8	83	5.0	62	4.6	68	4.7	65	5.0	72	5.0	54	5.4	61
8	4.6	69	4.6	77	5.6	89	4.8	85	4.9	83	4.9	75	4.8	76	4.9	74	4.8	77	4.8	82	4.8	96	4.6	94
9	4.5	96	4.5	94	4.3	94	4.6	92	4.8	87														
Mean*	4.62	82.8	4.91	83.4	4.95	84.6	4.44	81.9	4.36	77.1	4.30	72.1	4.44	70.5	4.30	66.4	4.77	74.1	4.76	76.8	4.66	79.1	4.83	83.3

* 1st to 8th.

1900. September.

Gaasefjord. 18th to 30th $\varphi = 76^\circ 49' N.$ $\lambda = 88^\circ 40' W.$

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
11													2.8	98	3.0	100	3.1	100	3.1	100	3.1	100	2.7	94
12	2.8	96	2.7	95	2.2	94	2.3	94	2.5	90	2.9	99	3.1	99	3.1	96	3.1	96	3.1	100	3.2	100	3.2	100
13	3.3	100	*3.3*	*100*	3.3	100	3.1	94	3.1	93	3.2	95	3.3	94	3.6	98	3.6	99	3.1	92	3.2	93	3.3	97
14	3.4	97	3.9	94	3.7	95	3.6	93	3.5	91	2.7	84	3.1	86	2.9	75	3.3	80	3.5	81	3.3	81	3.5	89
15	3.7	98	3.9	100	*3.2*	*100*	2.6	100	2.8	96	3.9	94	4.0	97	3.6	85	4.1	99	3.9	93	3.9	94	3.5	83
16	3.8	93	3.3	84	3.3	84	3.1	84	2.9	92	3.1	93	2.8	96	2.4	93	2.2	92	2.3	98	2.1	92	2.2	91
17	1.8	77	2.3	96	2.3	88	2.3	84	*2.2*	*82*	2.2	80	*2.4*	*90*	2.6	100	2.5	99	2.2	86	2.3	83	2.4	82
18	2.7	96	2.2	76	1.9	64	1.7	61	1.7	61	1.6	65	1.9	66	1.8	67	1.7	67	1.7	68	1.9	70	1.8	68
19	1.7	65	1.8	67	1.8	65	1.9	69	1.8	66	2.0	83	1.9	85	1.6	80	1.6	89	1.5	85	1.6	81	1.7	88
20	1.7	87	1.9	86	1.9	87	1.9	82	*1.8*	*80*	1.7	78	1.4	72	*1.4*	*74*	1.4	75	1.6	80	1.6	83	1.6	81
21	1.6	78	1.6	75	1.4	68	1.3	68	1.4	67	1.4	65	1.5	72	1.7	80	1.6	73	1.5	73	1.4	70	1.6	76
22	1.6	81	1.6	87	1.7	92	1.7	87	1.7	85	1.7	88	1.7	84	1.6	84	1.6	98	1.6	98	1.4	96	1.4	92
23	1.6	88	1.7	85	1.6	80	1.7	82	1.4	78	1.4	76	1.6	80	1.5	82	1.9	85	1.9	85	1.8	80	1.9	83
24	2.1	92	2.1	92	1.9	90	1.9	90	1.8	90	1.7	76	1.6	84	1.7	87	1.8	95	1.7	92	1.9	89	1.8	87
25	1.7	86	1.7	85	1.6	90	1.6	89	1.6	89	1.7	87	1.6	88	1.6	88	1.5	89	1.4	87	1.4	90	1.3	85
26	1.3	90	1.3	90	1.3	87	1.4	85	1.5	90	1.5	90	1.6	93	1.5	94	1.4	93	1.4	84	1.5	89	1.5	86
27	1.4	89	1.4	90	1.4	92	1.3	91	1.2	86	1.3	89	1.6	94	1.6	91	1.6	91	1.7	93	1.5	88	1.4	93
28	1.4	94	1.2	90	1.2	87	1.3	82	1.3	87	1.3	83	1.5	80	1.4	83	1.4	87	1.3	90	1.4	93	1.4	93
29	1.5	83	1.6	80	1.4	59	1.2	63	1.4	67	1.2	70	1.3	69	1.5	72	1.4	75	1.4	76	1.6	79	*1.6*	*83*
30	1.7	87	1.9	84	1.7	83	1.8	78	1.7	79	1.7	81	1.5	84	1.4	88	1.5	87	1.6	88	1.4	82	1.4	84
Mean*	2.15	88.3	2.18	87.2	2.04	84.6	1.98	83.0	1.96	82.7	2.01	83.1	2.07	84.9	2.03	85.2	2.07	87.9	2.02	86.9	2.02	86.0	2.03	86.4

* 12th to 30th. Sept. 11th to 17th under way.

1900. October.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.6	87	1.7	88	1.8	89	1.8	89	1.8	90	1.8	91	1.9	90	1.8	92	1.8	92	1.8	94	1.7	95	1.8	96
2	1.7	94	1.8	93	1.6	91	1.7	92	1.6	91	1.5	91	1.5	91	1.4	91	1.5	92	1.5	92	1.5	94	1.2	85
3	0.8	91	0.8	90	0.7	91	0.7	90	1.2	89	1.4	88	1.5	94	1.5	94	1.6	97	1.6	96	1.7	98	1.1	75
4	*1.2*	*84*	1.3	92	1.2	93	*1.2*	*91*	*1.1*	*89*	*1.0*	*86*	*1.0*	*84*	*0.9*	*82*	0.9	86	0.9	86	1.2	90	1.2	90
5	1.3	91	1.2	91	1.2	90	1.1	88	1.1	88	1.0	83	1.0	86	0.9	85	0.9	84	0.9	84	1.0	89	1.1	88
6	1.1	88	0.8	86	0.8	83	0.8	85	0.7	85	0.7	84	0.8	83	0.8	84	0.8	85	0.8	85	0.7	86	0.4	86
7	0.5	86	0.4	85	0.4	85	0.4	85	0.5	85	0.5	85	0.6	85	0.4	81	0.5	86	0.5	84	0.4	84	0.5	84
8	0.7	74	0.6	71	0.6	71	0.6	67	0.6	66	0.6	66	0.6	67	0.6	69	0.6	73	0.6	82	0.5	83	0.5	83
9	0.5	83	0.6	81	0.6	83	0.5	79	0.5	80	0.4	80	0.5	80	0.5	80	0.5	77	0.5	79	0.5	77	0.5	79
10	0.5	81	0.5	78	0.5	79	0.5	79	0.5	77	0.6	77	0.5	77	0.6	78	0.6	79	0.6	81	0.6	82	0.7	80
11	0.6	75	0.6	69	0.6	64	0.6	64	0.6	70	0.7	71	0.6	69	0.6	73	0.7	73	0.7	73	0.7	76	0.7	68
12	0.8	67	0.9	66	*0.8*	*64*	0.7	61	0.6	64	0.7	68	0.7	70	0.7	72	0.7	74	0.7	71	0.7	68	0.6	69
13	0.6	71	0.7	65	0.7	64	0.7	76	0.7	72	0.6	78	0.6	73	0.6	76	0.6	79	0.6	78	0.5	79	0.6	78
14	0.5	78	0.4	82	0.4	80	0.5	84	0.6	85	0.6	83	0.5	77	0.5	80	0.5	79	0.6	79	0.6	81	0.6	83
15	0.6	83	0.6	85	0.7	87	0.7	86	0.7	87	0.7	88	0.7	88	0.8	88	0.8	87	0.6	86	0.5	83	0.5	84
16	0.6	84	0.6	82	0.6	82	0.6	84	0.6	85	0.5	84	0.7	83	*0.7*	*82*	0.7	82	0.7	86	0.6	86	0.6	85
17	0.5	81	0.5	76	0.6	88	0.7	88	0.7	88	0.7	88	0.7	84	0.7	84	0.7	85	0.7	83	0.7	84	0.7	83
18	0.7	84	0.7	85	0.7	86	0.8	90	0.7	89	0.6	83	0.5	83	0.5	87	0.4	75	0.4	86	0.5	87	0.5	88
19	0.5	88	0.6	87	0.6	81	0.7	79	0.8	74	0.9	77	1.0	73	1.2	83	1.1	78	1.4	82	1.4	77	1.4	73
20	1.3	65	1.6	75	2.0	79	*1.8*	*80*	*1.6*	*81*														
21																								
22											1.5	82	1.9	84	1.8	80	1.9	84	1.9	89	1.9	85	1.7	87
23	1.6	86	1.6	85	1.5	86	1.5	87	1.7	67	1.6	66	1.4	68	1.5	73	1.7	79	1.8	92	2.3	90	2.5	93
24	2.6	87	2.6	85	2.7	87	2.6	84	2.4	74	2.8	86	2.7	96	2.5	99	1.8	96	1.5	93	1.5	92	1.3	91
25	1.2	89	1.0	85	0.8	84	0.8	83	1.0	84	1.1	86	1.0	76	1.0	78	1.1	75	1.1	76	1.2	81	1.3	76
26	1.4	74	1.4	70	1.5	75	1.1	73	1.1	93	1.0	92	0.7	83	0.7	85	0.7	85	0.7	85	0.6	78	0.6	82
27	0.6	83	0.6	84	0.6	83	0.6	86	0.5	82	0.6	82	0.6	82	0.7	80	0.7	80	0.8	83	0.9	88	0.9	88
28	0.9	87	0.9	85	0.9	86	1.0	86	0.8	84	0.8	87	0.9	90	0.9	86	0.9	81	0.9	76	0.9	78	1.0	81
29	0.9	79	1.0	82	0.9	88	1.1	85	1.3	86	1.4	86	1.5	86	1.5	80	2.1	95	2.2	87	2.0	85	2.1	86
30	2.2	92	2.1	84	2.3	96	2.2	96	2.2	98	1.1	82	0.9	78	0.8	78	0.7	78	0.6	77	0.5	77	0.6	80
31	0.5	80	0.6	83	0.5	84	0.5	80	0.4	88	0.4	88	0.4	88	0.4	87	0.6	90	0.6	91	0.5	90	0.5	90
Mean	0.98	82.6	0.99	81.8	0.99	82.8	0.98	82.9	0.99	82.7	0.96	82.6	0.96	81.9	0.95	82.4	0.97	83.0	0.97	84.2	0.98	84.3	0.96	83.3

1900. November.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2^h		4^h		6^h		8^h		10^h		Noon		2^h		4^h		6^h		8^h		10^h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.5	89	0.4	90	0.4	89	0.4	90	0.5	91	0.5	91	0.5	91	0.5	90	0.5	89	0.4	88	0.4	87	0.4	87
2	0.4	87	0.4	86	0.3	85	0.3	84	0.3	83	0.3	83	0.3	83	0.3	77	0.4	83	0.4	85	0.4	87	0.4	88
3	0.5	90	0.5	93	0.6	92	0.7	100	0.7	98	0.8	97	0.8	95	0.9	93	0.9	95	1.1	100	1.2	100	1.3	100
4	1.3	100	1.3	100	1.4	100	1.5	100	1.5	100	1.6	100	1.6	100	1.7	100	1.6	97	1.7	100	1.8	100	1.8	100
5	1.8	100	1.7	98	1.5	95	1.4	92	1.3	89	1.2	89	1.3	88	1.3	90	1.1	88	1.1	88	0.9	80	0.8	81
6	0.7	83	0.5	79	0.5	77	0.4	77	0.4	77	0.4	80	0.3	79	0.3	77	0.3	78	0.3	77	0.3	80	0.3	80
7	0.3	80	0.3	80	0.3	83	0.3	79	0.2	77	0.2	78	0.2	77	0.2	78	0.2	80	0.2	80	0.2	80	0.2	80
8	0.2	79	0.2	78	0.2	77	0.2	77	0.2	77	0.2	78	0.2	79	0.2	79	0.2	80	0.2	78	0.2	77	0.2	78
9	0.2	78	0.2	79	0.2	77	0.2	77	0.2	78	0.2	73	0.2	72	0.2	73	0.2	72	0.2	72	0.2	72	0.2	71
10	0.2	72	0.2	73	0.3	72	0.2	72	0.2	76	0.2	74	0.1	78	0.2	78	0.2	78	0.2	79	0.2	79	0.2	80
11	0.1	80	0.2	81	0.3	81	0.3	83	0.3	82	0.4	82	0.4	81	0.5	81	0.5	82	0.4	83	0.5	83	0.5	83
12	0.4	84	0.4	84	0.5	84	0.6	84	0.6	85	0.6	86	0.5	85	0.5	85	0.5	84	0.5	84	0.6	83	0.6	84
13	0.6	85	0.6	82	0.7	84	0.7	85	0.5	86	0.5	85	0.4	85	0.4	85	0.4	86	0.6	83	0.6	83	0.5	84
14	0.5	84	0.4	86	0.4	84	0.4	85	0.5	86	0.4	81	0.3	85	0.3	87	0.3	87	0.4	81	0.4	82	0.5	80
15	0.5	83	0.5	80	0.3	85	0.4	86	0.3	85	0.3	85	0.3	85	0.3	86	0.3	85	0.3	86	0.3	86	0.2	86
16	0.3	86	0.3	84	0.3	84	0.2	84	0.2	85	0.2	85	0.2	85	0.3	85	0.3	85	0.3	85	0.3	84	0.3	84
17	0.3	84	0.3	85	0.3	85	0.3	84	0.2	86	0.2	87	0.2	84	0.4	84	0.4	82	0.3	87	0.2	88	0.2	87
18	0.4	83	0.2	85	0.2	85	0.2	85	0.2	85	0.2	84	0.2	84	0.2	84	0.2	83	0.2	84	0.2	84	0.3	81
19	0.3	80	0.3	78	0.2	80	0.2	82	0.3	82	0.2	82	0.3	81	0.2	81	0.2	82	0.2	82	0.2	82	0.3	83
20	0.2	84	0.2	84	0.2	83	0.3	85	0.2	84	0.3	83	0.3	83	0.3	82	0.3	82	0.3	83	0.3	85	0.3	82
21	0.5	79	0.4	79	0.3	84	0.3	85	0.3	85	0.3	84	0.3	82	0.3	83	0.3	82	0.3	81	0.4	82	0.3	83
22	0.3	83	0.3	84	0.4	84	0.5	86	0.4	85	0.4	85	0.5	80	0.4	81	0.5	81	0.6	82	0.6	78	0.6	79
23	0.5	78	0.4	85	0.4	85	0.3	84	0.2	86	0.3	86	0.2	78	0.4	83	0.4	85	0.5	86	0.4	87	0.4	85
24	0.4	87	0.4	88	0.4	89	0.4	84	0.4	82	0.4	88	0.4	82	0.5	84	0.5	86	0.5	87	0.4	80	0.5	85
25	0.5	88	0.5	88	0.4	85	0.4	90	0.5	91	0.4	93	0.4	91	0.5	92	0.5	92	0.4	93	0.4	93	0.4	92
26	0.4	95	0.4	91	0.5	95	0.5	88	0.6	81	0.4	90	0.5	89	0.4	88	0.5	87	0.4	91	0.3	92	0.3	92
27	0.3	92	0.3	91	0.3	91	0.3	91	0.3	92	0.3	90	0.3	90	0.4	91	0.5	90	0.5	91	0.5	93	0.5	93
28	0.5	95	0.4	94	0.4	94	0.4	93	0.5	93	0.5	94	0.6	92	0.7	91	0.8	88	0.8	88	0.9	90	0.8	95
29	0.8	98	0.9	95	0.9	94	1.6	90	1.6	85	1.8	87	1.8	85	1.8	100	1.9	100	1.8	100	1.7	87	1.6	82
30	1.6	79	1.5	88	1.6	94	1.6	89	1.6	91	1.7	93	1.2	96	1.0	92	1.0	89	1.0	89	0.8	86	0.7	86
Mean	0.52	85.6	0.49	85.7	0.49	86.0	0.52	85.8	0.51	85.5	0.51	86.0	0.49	85.0	0.52	85.5	0.53	85.4	0.54	85.9	0.53	85.1	0.52	85.2

1900. December.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.6	86	0.5	84	0.4	85	0.4	85	0.5	84	0.5	84	0.4	84	0.4	85	0.3	85	0.4	85	0.4	84	0.4	86
2	0.4	83	0.4	83	0.3	83	0.5	75	1.4	77	1.6	90	1.2	73	1.3	74	1.3	76	1.3	77	1.4	82	1.5	91
3	1.4	88	1.4	97	1.1	87	0.8	86	0.7	85	0.6	80	0.5	77	0.5	77	0.4	77	0.4	84	0.4	83	0.3	82
4	0.3	84	0.3	86	0.3	86	0.3	89	0.3	85	0.3	86	0.3	87	0.3	87	0.3	87	0.3	87	0.2	87	0.3	87
5	0.3	86	0.3	87	0.3	86	0.3	85	0.3	87	0.3	88	0.3	88	0.3	88	0.3	85	0.4	87	0.4	88	0.4	89
6	0.4	90	0.3	89	0.3	89	0.2	88	0.2	88	0.3	88	0.3	88	0.3	88	0.4	83	0.3	82	0.3	84	0.3	84
7	0.3	85	0.3	86	0.3	85	0.3	86	0.3	87	0.3	87	0.3	85	0.3	87	0.2	86	0.3	84	0.4	81	0.3	82
8	0.3	84	0.3	82	0.3	84	0.2	84	0.2	84	0.2	87	0.2	87	0.2	86	0.2	85	0.3	83	0.4	72	0.4	73
9	0.4	73	0.4	73	0.4	72	0.3	85	0.3	86	0.3	86	0.2	87	0.3	88	0.2	87	0.3	89	0.3	88	0.2	88
10	0.2	88	0.2	87	0.2	87	0.2	88	0.2	86	0.2	85	0.3	85	0.3	85	0.2	85	0.2	85	0.2	86	0.2	86
11	0.3	86	0.2	85	0.3	86	0.3	86	0.3	87	0.3	88	0.3	88	0.3	89	0.4	90	0.4	91	0.5	92	0.5	92
12	0.5	93	0.6	93	0.6	93	0.7	94	0.8	95	0.8	95	0.7	96	0.7	95	0.7	95	0.5	95	0.6	95	0.6	95
13	0.5	94	0.5	93	0.5	92	0.4	92	0.3	92	0.3	91	0.3	91	0.3	91	0.3	90	0.3	90	0.3	92	0.3	91
14	0.2	91	0.2	91	0.2	90	0.3	90	0.3	91	0.3	96	0.3	91	0.3	91	0.3	91	0.5	91	0.5	93	0.6	96
15	0.7	97	0.9	92	0.9	86	1.0	88	1.0	94	1.0	93	1.0	88	1.0	91	1.0	91	1.0	91	1.1	92	1.0	92
16	1.0	92	1.0	82	0.7	79	0.6	82	0.5	82	0.5	84	0.3	85	0.3	82	0.2	85	0.3	83	0.2	84	0.3	84
17	0.2	80	0.2	83	0.2	80	0.2	80	0.2	79	0.2	79	0.1	80	0.1	81	0.1	80	0.1	79	0.1	78	0.1	77
18	0.1	77	0.1	77	0.1	77	0.1	76	0.1	77	0.1	77	0.1	73	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
19	0.1	76	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
20	0.1	77	0.1	73	0.1	72	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	78
21	0.1	78	0.1	77	0.1	76	0.1	77	0.1	76	0.1	76	0.1	77	0.1	77	0.1	77	0.1	77	0.1	78	0.1	77
22	0.1	77	0.1	77	0.1	76	0.1	77	0.1	77	0.1	75	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
23	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
24	0.1	77	0.1	76	0.1	76	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
25	0.1	77	0.1	77	0.1	77	0.1	77	0.1	78	0.1	77	0.1	77	0.1	77	0.1	78	0.1	77	0.1	77	0.1	77
26	0.1	77	0.1	78	0.1	77	0.1	78	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77	0.1	77
27	0.1	77	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	78	0.1	79
28	0.1	78	0.2	79	0.2	79	0.2	79	0.2	80	0.2	81	0.1	81	0.2	82	0.1	82	0.1	82	0.1	82	0.1	81
29	0.1	80	0.1	82	0.1	82	0.2	79	0.1	81	0.1	82	0.1	81	0.1	81	0.2	75	0.2	72	0.2	74	0.2	73
30	0.1	78	0.1	77	0.1	79	0.2	79	0.1	79	0.1	79	0.2	79	0.2	79	0.2	80	0.2	79	0.2	81	0.1	81
31	0.1	81	0.1	81	0.2	82	0.1	83	0.1	84	0.1	85	0.1	85	0.1	85	0.1	85	0.1	85	0.1	85	0.1	86
Mean	0.27	83.0	0.31	82.6	0.29	81.9	0.28	82.5	0.30	83.0	0.31	83.5	0.27	82.5	0.28	82.8	0.27	82.5	0.29	82.4	0.30	82.6	0.30	83.1

1901. January.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.1	86	0.1	84	0.1	84	0.1	85	0.1	85	0.1	84	0.1	84	0.1	85	0.1	85	0.1	85	0.1	85	0.1	85
2	0.2	85	0.2	81	0.2	81	0.2	79	0.2	79	0.1	85	0.1	84	0.1	84	0.1	84	0.1	83	0.1	85	0.1	85
3	0.1	85	0.1	84	0.1	85	0.2	84	0.2	85	0.2	86	0.2	86	0.2	87	0.3	89	0.4	90	0.4	91	0.4	91
4	0.5	92	0.5	92	0.5	92	0.5	93	0.6	94	0.6	94	0.6	95	0.6	90	0.3	83	0.3	81	0.3	83	0.2	80
5	0.2	81	0.2	81	0.1	79	0.1	81	0.1	81	0.1	80	0.1	80	0.1	81	0.1	81	0.1	81	0.1	82	0.1	84
6	0.1	84	0.1	84	0.1	84	0.2	84	0.1	84	0.1	84	0.2	84	0.2	84	0.1	84	0.1	84	0.2	83	0.2	82
7	0.2	82	0.2	82	0.2	82	0.2	83	0.2	83	0.2	84	0.4	76	0.3	84	0.3	86	0.3	87	0.3	87	0.2	89
8	0.2	89	0.2	88	0.2	88	0.2	88	0.1	88	0.2	87	0.1	88	0.1	87	0.1	87	0.1	87	0.1	86	0.1	86
9	0.1	86	0.1	87	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	87	1.3	87	0.1	87	0.1	87	0.1	86
10	0.1	86	0.1	87	0.2	87	0.2	88	0.2	88	0.1	87	0.1	87	0.1	87	0.1	87	0.1	87	0.1	86	0.2	85
11	0.2	85	0.1	85	0.1	85	0.1	84	0.1	84	0.1	83	0.1	82	0.1	83	0.1	83	0.1	83	0.1	83	0.1	84
12	1.2	84	0.1	82	0.1	82	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83
13	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	83	0.1	80	0.1	80	0.1	80	0.1	80
14	0.1	80	0.1	80	0.1	80	0.1	80	0.1	79	0.1	80	0.0	79	0.0	82	0.1	84	0.1	80	0.1	77	0.1	76
15	0.0	81	0.1	82	0.1	80	0.0	81	0.0	82	0.0	81	0.0	81	0.0	81	0.0	81	0.0	81	0.0	81	0.0	81
16	0.0	81	0.1	80	0.1	80	0.0	81	0.1	81	0.0	82	0.0	78	0.1	76	0.1	78	0.1	78	0.1	76	0.1	77
17	0.1	77	0.1	79	0.1	80	0.1	75	0.1	76	0.1	79	0.1	81	0.1	81	0.1	81	0.1	80	0.1	80	0.1	79
18	0.1	78	0.1	79	0.1	78	0.1	77	0.1	79	0.1	80	0.1	81	0.1	81	0.1	80	0.1	79	0.0	81	0.0	81
19	0.1	80	0.0	84	0.1	80	0.1	78	0.0	81	0.0	81	0.0	81	0.0	81	0.0	79	0.0	79	0.0	77	0.0	77
20	0.0	77	0.0	78	0.1	80	0.1	80	0.1	80	0.1	82	0.1	84	0.1	85	0.1	85	0.1	83	0.1	81	0.1	80
21	0.1	80	0.1	81	0.1	81	0.1	81	0.1	80	0.1	80	0.1	80	0.1	80	0.1	79	0.1	80	0.1	80	0.1	80
22	0.1	80	0.1	80	0.1	78	0.1	77	0.1	76	0.1	77	0.1	76	0.0	76	0.0	76	0.1	76	0.1	76	0.0	77
23	0.1	77	0.1	76	0.1	76	0.0	76	0.0	77	0.1	78	0.1	78	0.1	77	0.1	77	0.1	77	0.1	78	0.1	79
24	0.1	80	0.1	81	0.1	80	0.1	79	0.1	82	0.1	83	0.2	82	0.1	83	0.1	83	0.1	82	0.1	82	0.2	82
25	0.2	82	0.2	83	0.2	82	0.2	82	0.2	82	0.2	82	0.2	82	0.2	82	0.2	82	0.2	77	0.2	77	0.2	77
26	0.2	81	0.2	83	0.1	83	0.1	83	0.1	84	0.1	85	0.1	84	0.1	84	0.1	83	0.1	84	0.1	85	0.1	84
27	0.2	84	0.2	83	0.2	83	0.3	84	0.4	89	0.4	83	0.5	84	0.5	84	0.4	85	0.4	80	0.3	82	0.4	82
28	0.4	79	0.4	80	0.2	83	0.2	85	0.2	81	0.2	86	0.2	87	0.1	87	0.1	88	0.2	89	0.2	89	0.2	89
29	0.2	88	0.3	88	0.3	80	0.4	77	0.3	83	0.3	84	0.3	91	0.3	92	0.3	92	0.3	88	0.5	80	0.4	91
30	0.5	81	0.4	87	0.6	82	0.4	91	0.4	89	0.3	90	0.5	84	0.4	84	0.3	85	0.4	84	0.4	85	0.3	84
31	0.3	84	0.4	84	0.5	83	0.2	88	0.2	88	0.2	88	0.2	88	0.2	88	0.2	88	0.2	88	0.3	89	0.3	90
Mean	0.20	82.6	0.16	82.3	0.17	82.3	0.16	82.6	0.15	83.1	0.15	83.7	0.17	83.4	0.15	83.7	0.15	83.6	0.15	82.8	0.16	82.7	0.15	82.8

1901. February.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	91	0.2	91	0.2	91	0.2	91	0.2	90	0.2	88	0.2	87	0.2	85	0.2	85	0.2	87	0.2	87	0.2	87
2	0.1	86	0.1	85	0.1	84	0.1	85	0.1	85	0.2	85	0.2	87	0.2	88	0.2	88	0.2	88	0.2	84	0.2	85
3	0.2	86	0.2	84	0.2	80	0.1	77	0.1	80	0.1	79	0.1	79	0.1	78	0.1	78	0.1	75	0.1	73	0.1	78
4	0.1	80	0.1	83	0.1	83	0.1	82	0.1	83	0.1	82	0.1	82	0.1	83	0.1	82	0.1	82	0.1	81	0.1	81
5	0.1	79	0.1	84	0.1	85	0.1	85	0.1	83	0.1	82	0.1	82	0.1	75	0.1	77	0.1	77	0.1	77	0.1	85
6	0.1	85	0.1	82	0.1	83	0.1	83	0.1	83	0.1	82	0.1	85	0.1	85	0.1	84	0.1	83	0.1	84	0.1	84
7	0.1	84	0.1	85	0.1	85	0.1	85	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	85
8	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	87	0.1	87	0.1	87	0.1	87	0.1	87	0.1	87	0.1	86
9	0.1	87	0.1	88	0.1	87	0.1	88	0.2	88	0.2	85	0.2	87	0.2	83	0.3	88	0.3	89	0.4	90	0.4	91
10	0.4	92	0.5	92	0.5	92	0.5	92	0.6	94	0.8	94	0.8	95	0.8	95	0.7	96	0.7	96	1.2	94	1.1	96
11	1.0	98	0.9	95	0.7	97	0.6	91	0.6	93	0.5	92	0.5	93	0.5	92	0.4	91	0.4	90	0.4	90	0.3	88
12	0.3	88	0.3	90	0.3	91	0.3	91	0.2	91	0.2	91	0.2	90	0.1	90	0.1	90	0.1	89	0.1	89	0.1	89
13	0.1	89	0.1	89	0.1	88	0.1	89	0.1	87	0.1	87	0.1	87	0.1	87	0.1	87	0.2	87	0.2	88	0.3	91
14	0.3	91	0.4	91	0.5	92	0.5	93	0.6	95	0.8	99	0.8	99	0.9	99	0.9	100	0.9	100	0.9	99	1.0	100
15	1.0	99	0.9	100	0.9	100	0.5	98	0.3	99	0.3	99	0.3	99	0.3	99	0.2	99	0.2	99	0.2	100	0.2	99
16	0.2	100	0.2	100	0.2	99	0.2	99	0.2	99	0.2	92	0.2	85	0.1	79	0.1	73	0.1	76	0.1	78	0.2	79
17	0.2	80	0.2	82	0.2	86	0.2	88	0.2	87	0.2	86	0.2	85	0.1	84	0.1	84	0.2	85	0.1	88	0.1	84
18	0.1	85	0.1	85	0.1	88	0.1	88	0.1	88	0.2	89	0.2	89	0.2	91	0.3	91	0.4	94	0.4	95	0.4	92
19	0.4	91	0.4	91	0.3	90	0.3	91	0.2	91	0.2	88	0.2	90	0.2	92	0.2	91	0.1	90	0.1	90	0.2	90
20	0.1	92	0.2	90	0.2	91	0.2	90	0.2	90	0.2	87	0.2	85	0.3	84	0.3	84	0.3	81	0.3	81	0.4	78
21	0.3	81	0.3	77	0.3	78	0.3	85	0.3	85	0.3	88	0.4	90	0.6	90	0.6	93	0.5	93	0.5	93	0.5	94
22	0.5	95	0.6	96	0.7	98	0.8	99	0.8	100	0.7	92	0.8	86	0.8	82	0.7	86	0.7	95	1.0	85	1.0	85
23	1.0	82	0.9	78	1.1	70	1.1	63	1.1	57	1.0	53	0.9	74	0.8	88	0.6	94	0.9	97	0.5	97	0.4	98
24	0.5	97	0.4	93	0.4	91	0.4	96	0.4	97	0.4	96	0.4	97	0.4	97	0.5	98	0.7	100	0.9	100	0.9	100
25	1.0	100	0.9	98	0.8	99	0.9	99	1.0	99	0.9	85	0.3	72	0.2	79	0.1	73	0.2	84	0.1	75	0.1	74
26	0.1	75	0.1	78	0.1	76	0.1	80	0.1	79	0.1	78	0.1	76	0.1	74	0.1	77	0.1	79	0.1	80	0.1	80
27	0.1	77	0.1	80	0.1	76	0.1	79	0.1	78	0.1	77	0.1	76	0.1	78	0.1	78	0.1	79	0.1	79	0.1	79
28	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	79	0.1	80	0.1	78	0.1	80	0.1	80
Mean	0.32	87.8	0.31	87.7	0.28	87.4	0.24	87.7	0.30	87.7	0.30	86.2	0.29	86.1	0.28	86.2	0.27	86.5	0.29	87.5	0.31	87.0	0.32	87.2

1901. March.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.1	80	0.1	80	0.1	79	0.1	79	0.1	80	0.1	79	0.1	78	0.1	81	0.1	81	0.1	81	0.1	81	0.1	79
2	0.1	80	0.1	80	0.1	79	0.1	79	0.1	80	0.1	80	0.1	80	0.1	80	0.2	79	0.2	72	0.2	67	0.2	67
3	0.2	66	0.2	79	0.1	80	0.1	84	0.1	85	0.3	75	0.2	67	0.1	81	0.1	83	0.1	84	0.1	83	0.1	83
4	0.1	85	0.1	83	0.2	84	0.1	84	0.1	84	0.1	82	0.1	84	0.1	82	0.1	80	0.1	77	0.1	77	0.1	77
5	0.1	79	0.2	78	0.1	83	0.2	85	0.1	87	0.3	83	0.3	83	0.3	85	0.4	85	0.3	86	0.3	82	0.3	88
6	0.3	86	0.2	90	0.2	91	0.2	89	0.2	89	0.2	89	0.2	87	0.2	86	0.2	86	0.2	87	0.3	93	0.3	91
7	0.3	93	0.4	93	0.3	93	0.2	92	0.3	92	0.3	89	0.3	92	0.3	92	0.2	81	0.2	86	0.1	82	0.1	80
8	0.1	82	0.2	84	0.2	82	0.2	84	0.2	81	0.2	82	0.1	79	0.1	79	0.1	80	0.1	81	0.1	79	0.1	78
9	0.1	76	0.1	79	0.1	79	0.1	78	0.1	77	0.1	80	0.1	80	0.1	79	0.1	81	0.1	82	0.1	83	0.1	84
10	0.1	84	0.1	82	0.1	83	0.1	84	0.1	84	0.1	85	0.1	83	0.2	75	0.1	81	0.1	83	0.1	83	0.2	77
11	0.1	85	0.1	84	0.1	84	0.2	74	0.1	83	0.1	85	0.1	83	0.1	83	0.1	82	0.1	82	0.1	82	0.1	81
12	0.1	82	0.1	83	0.1	83	0.1	83	0.1	83	0.1	82	0.1	85	0.1	87	0.1	86	0.1	86	0.1	86	0.1	86
13	0.1	86	0.1	87	0.1	87	0.1	87	0.1	88	0.2	89	0.2	89	0.2	89	0.2	89	0.2	89	0.3	92	0.2	87
14	0.3	85	0.2	90	0.2	90	0.2	90	0.2	88	0.2	89	0.3	86	0.2	87	0.2	84	0.1	87	0.1	84	0.1	84
15	0.1	86	0.1	85	0.1	85	0.1	85	0.1	87	0.2	86	0.2	86	0.2	86	0.2	88	0.2	89	0.2	89	0.1	88
16	0.2	89	0.1	88	0.1	88	0.1	89	0.2	89	0.2	89	0.2	89	0.1	88	0.1	87	0.1	87	0.1	87	0.1	87
17	0.1	86	0.1	86	0.1	87	0.1	86	0.1	88	0.1	88	0.2	88	0.2	89	0.1	88	0.2	88	0.1	88	0.2	87
18	0.2	88	0.1	90	0.1	90	0.2	89	0.1	89	0.2	88	0.1	85	0.1	85	0.1	85	0.1	86	0.2	85	0.2	82
19	0.1	85	0.1	84	0.1	84	0.1	85	0.1	84	0.1	85	0.2	81	0.1	85	0.1	85	0.1	87	0.1	88	0.1	86
20	0.1	87	0.1	86	0.1	85	0.1	85	0.1	86	0.1	86	0.1	86	0.1	85	0.1	86	0.1	86	0.1	86	0.1	86
21	0.1	86	0.1	86	0.1	86	0.1	86	0.1	87	0.1	87	0.1	87	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86
22	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.2	87	0.2	87	0.2	86	0.1	87	0.1	89	0.1	89	0.1	87
23	0.1	87	0.1	86	0.2	84	0.2	81	0.2	82	0.2	80	0.3	79	0.3	76	0.3	79	0.3	86	0.3	88	0.3	88
24	0.3	88	0.4	88	0.4	88	0.4	92	0.4	91	0.4	95	0.5	96	0.5	95	0.5	95	0.6	95	0.6	95	0.7	94
25	0.7	95	0.7	97	0.8	96	0.8	97	0.8	93	0.9	98	1.0	99	1.0	99	1.2	100	1.2	99	1.5	98	1.5	96
26	1.3	98	1.3	98	1.0	97	0.8	97	0.8	93	0.7	92	0.6	93	0.5	92	0.5	93	0.5	94	0.3	94	0.4	93
27	0.4	94	0.4	93	0.4	91	0.4	91	0.3	91	0.3	90	0.3	85	0.3	89	0.3	85	0.3	87	0.3	87	0.2	89
28	0.2	91	*0.2*	*91*	0.2	91	0.3	92	0.3	89	0.4	87	0.4	86	0.4	86	0.4	91	0.4	91	0.5	92	0.5	92
29	0.6	92	0.6	96	0.6	97	1.5	100	1.5	98	1.4	97	1.4	98	1.4	100	1.4	100	1.1	99	*1.1*	*97*	*1.0*	*95*
30	*0.9*	*94*	*0.8*	*93*	*0.7*	*92*	*0.6*	*90*	0.6	88	0.7	91	0.6	91	0.6	92	0.6	94	0.6	94	0.6	95	0.6	96
31	0.5	87	0.4	86	0.3	90	0.3	90	0.4	88	0.4	90	0.4	90	0.4	86	0.3	86	0.3	89	0.3	92	0.3	91
Mean	0.26	86.2	0.25	86.9	0.24	87.0	0.26	87.0	0.26	86.9	0.29	86.7	0.29	86.0	0.28	86.3	0.28	86.3	0.27	87.1	0.28	86.9	0.28	86.1

1901. April.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	92	0.2	92	0.2	91	0.2	91	0.3	89	0.3	88	0.3	87	0.4	87	0.3	89	0.3	92	0.2	93	0.2	93
2	0.2	94	0.2	92	0.3	90	0.3	90	0.4	89	0.5	88	0.5	89	0.4	89	0.4	90	0.3	91	0.3	91	0.4	93
3	0.4	93	0.4	94	0.4	94	0.4	93	0.4	91	0.5	91	0.6	90	0.5	89	0.4	88	0.4	89	0.4	93	0.3	94
4	0.3	91	0.3	92	0.3	90	0.3	90	0.3	90	0.4	88	0.4	88	0.4	90	0.3	91	0.3	92	0.3	96	0.3	96
5	*0.3*	*96*	*0.3*	*96*	0.3	95	0.3	94	0.4	95	0.5	95	0.6	94	0.7	95	0.7	94	1.2	82	1.3	93	1.2	79
6	1.2	83	1.1	80	1.1	93	1.0	91	1.1	95	1.0	94	1.0	95	1.0	95	1.1	96	1.2	97	1.6	98	1.2	100
7	0.8	97	0.6	94	0.5	94	0.5	93	0.5	88	0.4	88	0.4	87	0.4	87	0.4	87	0.4	87	0.3	87	0.3	88
8	0.3	88	0.2	87	0.3	87	0.3	87	0.3	87	0.3	87	0.4	86	0.3	84	0.3	87	0.3	87	0.3	87	0.3	89
9	0.2	89	0.2	93	0.2	85	0.3	82	0.3	82	0.3	83	0.3	84	0.3	84	0.2	86	0.3	82	0.2	85	0.2	87
10	0.2	85	0.2	85	0.2	85	0.2	84	0.3	83	0.3	80	0.3	83	0.4	87	0.4	91	0.6	95	0.6	95	0.8	97
11	0.8	97	0.8	97	0.6	86	0.4	81	0.3	82	0.3	78	0.2	77	0.2	76	0.2	76	0.2	77	0.2	84	0.2	85
12	0.1	86	0.2	86	0.2	87	0.3	84	0.2	86	0.2	90	0.2	90	0.2	90	0.3	90	0.2	89	0.3	80	0.3	80
13	0.2	87	0.1	87	0.2	86	0.2	86	0.2	87	0.2	88	0.2	87	0.2	88	0.2	86	0.2	86	0.2	87	0.2	89
14	0.3	84	0.3	85	0.2	89	0.2	88	0.3	88	0.3	88	0.3	88	0.3	88	0.3	91	0.3	89	0.3	90	0.3	89
15	0.3	87	0.3	87	0.4	89	0.3	93	0.4	88	0.5	84	0.4	92	0.4	91	0.3	86	0.3	85	0.3	85	0.3	84
16	0.3	83	0.4	86	0.5	89	0.6	90	0.6	88	0.7	88	0.7	88	0.8	92	0.7	94	0.7	91	0.7	93	0.7	95
17	0.7	96	0.6	93	0.7	92	0.7	91	0.8	90	0.8	92	0.9	95	0.9	95	0.9	98	0.9	98	0.9	99	0.9	97
18	0.9	97	0.9	97	1.0	98	1.0	95	1.0	91	1.0	90	1.0	89	1.0	85	0.9	90	0.9	89	0.8	87	0.8	87
19	1.1	90	1.1	95	1.1	90	1.1	89	1.0	81	1.0	78	1.0	78	1.0	82	0.8	86	0.8	85	0.7	83	0.7	86
20	0.5	87	0.6	89	0.5	87	0.5	86	0.6	82	0.7	85	0.8	82	0.8	86	0.8	81	0.7	76	0.7	76	0.7	78
21	0.8	78	0.7	76	0.7	76	0.8	74	0.5	76	0.8	91	0.8	91	0.8	92	0.9	93	0.7	97	0.6	99	0.7	99
22	0.7	98	0.7	99	0.7	97	0.7	98	0.8	95	0.8	85	0.9	91	0.9	91	0.8	97	0.8	99	0.7	100	0.7	100
23	0.6	98	0.7	99	0.7	98	0.6	99	0.6	95	0.7	97	0.7	96	*0.6*	*90*	*0.6*	*83*	0.5	77	*0.5*	*78*	*0.5*	*78*
24	*0.4*	*78*	*0.4*	*78*	0.4	78	0.5	77	0.5	78	0.5	77	0.5	76	0.5	75	0.5	78	0.4	79	0.3	79	0.4	82
25	0.4	81	0.5	82	0.6	80	0.6	81	0.6	79	0.6	84	0.6	80	0.6	84	0.5	85	0.5	87	0.4	86	0.4	86
26	0.4	85	0.3	85	0.3	85	0.4	85	0.6	86	0.8	86	0.8	82	0.8	79	0.9	83	1.0	84	0.9	86	0.8	86
27	0.8	86	0.8	86	0.8	86	0.9	78	0.9	79	1.0	80	1.2	68	0.9	75	0.9	80	0.8	82	0.6	79	0.6	85
28	*0.5*	*83*	0.5	81	0.5	80	0.6	81	0.8	74	0.9	75	1.0	78	0.9	78	1.0	79	1.0	82	1.0	82	1.0	82
29	1.0	82	0.9	83	1.1	82	1.1	80	1.1	82	1.0	84	1.0	84	1.0	86	1.0	86	0.9	86	0.9	86	0.7	75
30	0.8	87	0.7	85	0.7	85	0.7	85	*0.7*	*85*	*0.7*	*86*	*0.8*	*87*	*0.8*	*88*	*0.8*	*89*	0.8	89	0.7	90	0.7	83
Mean	0.52	88.8	0.51	88.7	0.52	88.3	0.53	87.4	0.56	86.2	0.60	86.4	0.63	86.2	0.61	86.8	0.59	87.8	0.60	87.6	0.57	88.4	0.56	88.3

1901. May.

Gaasefjord. $\varphi = 76° 49' N.$ $\lambda = 88° 40' W.$

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.7	87	0.7	90	0.6	90	0.7	83	0.6	90	0.9	79	0.6	87	0.6	89	0.6	88	0.8	84	0.6	87	0.6	89
2	0.6	90	0.5	88	0.5	87	0.7	88	0.7	87	0.7	86	0.7	86	0.7	86	0.7	86	0.7	73	0.7	73	0.6	83
3	0.7	89	0.7	87	0.8	79	0.6	85	0.7	87	0.7	86	0.8	85	0.8	84	0.9	82	0.9	81	0.8	84	0.7	85
4	0.6	85	0.6	78	0.7	80	0.9	80	1.0	75	1.1	72	1.3	71	1.4	75	1.3	74	1.1	81	1.1	82	1.2	91
5	1.1	92	1.1	90	1.3	89	1.3	84	1.3	82	1.1	80	1.1	82	1.2	83	1.2	84	1.3	93	1.2	90	1.3	91
6	1.3	91	1.2	90	1.1	89	1.0	88	0.9	87	0.8	86	0.8	85	0.8	82	0.8	76	0.7	81	0.7	80	0.8	82
7	0.8	86	1.0	86	1.2	84	1.3	80	1.2	74	1.3	74	1.4	75	1.4	77	1.3	77	1.2	77	1.0	75	0.9	75
8	0.9	72	0.8	70	0.5	45	0.8	70	0.7	60	0.8	63	0.9	65	1.0	68	1.0	70	0.9	66	1.0	69	1.0	74
9	0.9	76	0.9	77	1.0	76	1.0	74	1.1	69	1.0	72	1.1	73	1.1	75	1.0	75	1.0	80	0.9	80	0.9	79
10	1.0	79	1.0	80	0.9	80	1.0	79	1.1	78	1.3	79	1.3	76	1.2	73	1.3	75	1.3	75	1.4	73	1.3	72
11	1.4	73	1.3	78	1.3	76	1.3	74	1.4	74	1.5	70	1.5	70	1.3	72	1.5	67	1.5	66	1.4	72	1.5	77
12	1.3	78	1.3	79	1.5	80	1.5	75	1.5	76	1.5	77	1.5	76	1.3	77	1.4	80	1.3	78	1.3	80	1.2	83
13	1.2	83	1.3	82	1.4	80	1.4	80	1.6	81	1.7	77	1.6	69	1.7	70	1.7	73	1.9	82	1.9	83	1.9	78
14	1.9	80	2.1	90	2.2	95	2.3	95	2.4	95	2.4	95	2.5	95	2.5	95	2.5	95	2.4	95	2.4	95	2.4	95
15	2.4	95	2.5	95	2.3	80	2.5	90	2.4	92	1.8	97	1.7	98	1.6	95	1.6	97	1.6	97	1.4	96	1.3	90
16	0.9	95	0.8	89	0.8	89	1.0	88	1.1	87	1.1	87	1.2	89	1.3	91	1.2	89	1.1	92	1.0	90	1.1	93
17	1.1	91	1.1	90	1.2	80	1.2	99	1.2	92	1.2	85	1.3	91	1.4	87	1.3	85	1.2	87	1.2	87	1.2	80
18	1.3	79	1.5	85	1.7	85	1.8	68	1.7	64	2.2	64	2.4	79	2.3	65	2.4	72	2.5	77	2.4	78	2.6	73
19	2.6	86	2.8	95	3.0	96	2.9	94	3.1	94	3.0	95	3.1	97	3.2	97	3.1	97	2.9	97	3.0	97	2.5	88
20	2.0	83	2.1	83	2.0	85	2.2	97	2.1	99	2.3	95	2.2	97	2.1	97	2.2	98	1.9	98	1.7	95	1.6	95
21	1.5	97	1.2	89	1.3	86	1.3	77	1.2	63	1.5	53	1.5	64	2.0	79	2.4	97	2.4	95	2.4	93	2.4	92
22	2.5	92	2.5	94	2.6	97	2.5	97	2.6	96	2.9	92	3.2	94	3.3	94	3.2	94	3.2	93	3.3	96	3.3	95
23	3.4	98	3.5	98	3.5	98	3.6	97	3.6	96	3.6	92	3.9	92	4.0	95	4.0	94	4.1	90	4.1	90	3.9	93
24	3.6	96	3.4	96	3.3	97	3.2	98	2.5	94	1.6	72	1.7	81	1.5	77	1.5	78	1.6	85	1.5	89	1.5	92
25	1.4	95	1.4	96	1.5	96	1.6	94	1.7	90	2.0	76	1.9	78	2.0	75	2.2	77	2.3	87	2.3	86	2.3	87
26	2.4	87	2.4	87	2.6	94	2.8	96	3.1	97	3.3	97	3.5	98	3.7	97	3.6	97	3.5	98	3.4	98	3.4	98
27	3.3	98	3.1	97	3.2	97	3.3	96	3.2	95	3.3	96	3.5	94	3.7	94	2.7	95	3.6	97	3.6	97	3.4	97
28	2.7	94	2.6	95	1.8	84	1.6	83	1.4	81	1.4	84	1.6	90	1.5	85	1.5	85	1.5	84	1.7	80	1.5	85
29	1.6	83	1.5	80	1.6	81	1.6	82	1.6	70	1.5	72	1.7	75	1.6	82	1.6	81	1.6	80	1.5	73	1.5	74
30	1.4	85	1.5	84	1.6	84	1.5	81	1.8	75	1.6	80	1.7	85	1.9	86	1.9	91	1.8	91	1.6	91	1.4	93
31	1.3	84	1.2	85	1.3	86	1.5	91	1.5	92	1.1	91	1.8	92	2.3	98	2.3	97	2.4	98	2.5	99	2.3	99
Mean	1.61	87.2	1.60	87.3	1.62	85.4	1.68	86.0	1.68	83.7	1.68	81.6	1.77	83.6	1.82	84.0	1.80	84.9	1.81	85.9	1.77	85.9	1.73	86.5

1901. June.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	2.2	99	2.4	100	2.4	100	*2.4*	*97*	*2.4*	*95*	2.4	92	2.4	90	2.5	93	2.4	91	2.3	86	2.4	84	2.2	82
2	2.3	83	2.3	83	2.3	80	2.3	80	2.4	80	2.2	76	2.4	77	2.4	76	2.3	75	2.7	82	2.8	85	2.8	84
3	3.0	85	2.2	71	1.9	76	1.9	76	1.9	74	2.2	76	2.0	77	2.1	82	2.2	85	2.3	84	2.2	86	2.1	85
4	2.2	90	1.9	88	1.9	88	2.1	79	2.0	75	2.5	82	2.5	77	2.6	82	2.5	80	2.6	87	2.2	87	2.2	84
5	2.2	85	2.1	77	2.1	79	2.2	86	2.1	79	2.2	81	2.5	85	2.5	80	2.6	84	2.8	84	2.8	86	3.0	89
6	2.9	88	2.9	85	3.1	85	2.9	84	3.0	85	3.3	85	2.4	81	2.3	79	2.4	82	3.0	88	2.7	88	2.5	80
7	2.3	81	2.4	82	2.1	76	2.1	88	2.3	78	2.4	77	2.5	78	2.5	79	2.4	82	2.3	77	2.2	74	2.0	93
8	2.0	83	2.1	82	2.2	83	2.2	80	2.3	78	2.2	79	2.4	84	2.5	79	2.6	81	2.5	87	2.4	83	2.4	76
9	2.3	69	*2.3*	*68*	2.3	67	2.4	85	2.3	79	2.7	97	2.8	95	2.7	91	2.7	93	2.7	93	2.5	88	2.6	90
10	2.9	99	2.9	97	2.7	92	2.6	88	2.6	86	2.7	84	2.8	87	3.0	88	3.1	86	2.9	81	3.1	87	3.1	86
11	2.7	92	2.8	90	3.3	93	3.2	78	3.0	72	3.4	78	3.3	81	3.4	72	2.7	65	2.6	65	2.7	71	2.7	72
12	2.7	72	2.8	74	2.7	75	2.8	72	2.9	70	3.0	69	3.1	67	2.9	68	2.8	70	2.9	76	2.9	76	3.0	80
13	2.9	78	2.9	81	2.8	78	2.9	79	3.1	85	3.2	87	*3.3*	*87*	*3.4*	*88*	*3.5*	*89*	*3.6*	*89*	*3.7*	*90*	*3.8*	*91*
14	*3.9*	*91*	*4.0*	*92*	*4.1*	*93*	*4.2*	*93*	*4.3*	*94*	*4.4*	*95*	*4.5*	*95*	*4.6*	*96*	*4.7*	*97*	4.7	97	4.2	95	3.4	97
15	3.3	95	3.3	92	3.2	91	3.3	93	3.4	90	2.9	74	3.1	73	3.1	68	3.1	75	2.7	67	3.3	87	3.4	92
16	3.4	91	3.7	97	3.8	97	4.0	97	4.6	94	4.8	97	4.6	98	4.7	98	4.7	97	4.6	98	4.6	98	4.7	98
17	4.3	98	4.2	98	4.3	98	3.5	94	4.0	88	3.9	86	3.8	88	3.7	86	3.7	83	4.0	88	4.3	91	4.1	86
18	4.4	88	4.2	79	4.5	87	4.4	83	4.4	72	4.4	68	4.6	80	5.0	94	4.9	94	4.7	98	4.9	95	4.8	95
19	4.7	95	4.6	89	4.7	91	4.8	82	4.7	95	4.8	88	4.7	92	4.4	90	4.0	88	4.1	90	3.7	88	3.6	93
20	3.4	92	3.4	94	3.4	88	3.7	82	4.1	91	4.6	95	4.8	98	4.6	90	4.1	87	4.1	90	3.9	86	4.3	98
21	4.4	99	4.3	97	4.4	96	4.2	85	4.1	90	4.4	82	4.4	91	4.2	73	4.3	71	4.1	65	4.3	78	4.7	95
22	4.3	76	4.0	93	3.9	95	4.0	89	4.0	77	4.1	87	3.8	77	4.1	86	4.0	96	3.0	88	4.1	86	3.6	86
23	3.7	83	3.5	90	3.7	95	4.0	97	4.3	87	4.4	73	3.4	65	3.6	71	3.2	58	3.2	56	2.9	57	3.2	66
24	3.3	74	3.8	71	3.3	77	3.6	87	3.8	90	4.1	84	4.3	86	4.4	83	4.6	84	4.6	80	4.8	61	4.8	73
25	4.5	84	3.9	86	5.1	67	4.6	61	4.8	75	4.1	76	4.7	79	4.3	84	4.3	90	4.4	92	4.5	96	4.6	97
26	4.7	97	4.8	98	4.8	97	4.8	95	4.7	93	4.7	88	4.7	88	4.8	85	4.8	78	4.8	76	4.8	77	4.7	81
27	5.4	80	4.7	87	4.8	90	5.0	85	4.9	87	5.1	81	5.2	80	5.1	86	4.9	93	5.0	85	5.4	94	5.2	92
28	5.1	97	*5.0*	*97*	5.0	97	4.9	95	4.8	96	5.0	94	5.2	90	6.1	75	5.6	53	5.5	71	5.4	79	5.4	85
29	4.8	92	4.9	92	4.8	90	4.9	86	4.8	83	5.1	96	5.5	98	5.5	98	5.3	98	5.0	100	5.0	99	4.7	97
30	4.9	96	*5.0*	*97*	5.0	97	5.1	98	5.3	95	5.2	91	5.6	90	5.3	95	5.2	98	5.3	99	5.1	99	5.0	97
Mean	3.50	87.9	3.43	87.6	3.49	87.4	3.50	85.9	3.58	84.6	3.68	84.0	3.71	84.5	3.74	83.9	3.65	83.6	3.63	84.1	3.66	85.2	3.62	87.5

1901. July.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	5.0	93	5.0	89	5.0	89	4.9	83	5.1	75	4.9	70	5.6	73	5.5	74	5.8	85	5.3	80	5.2	82	4.8	83
2	4.9	87	4.9	85	4.9	87	4.6	90	4.6	89	4.7	90	4.7	92	4.6	91	4.5	90	4.5	92	4.4	90	4.5	96
3	4.5	96	4.7	94	4.7	98	4.8	94	4.4	90	4.5	89	4.8	94	4.9	93	5.0	95	4.7	96	6.3	94	5.8	92
4	4.2	90	4.2	89	4.5	96	4.6	92	4.7	98	4.5	92	4.5	90	4.5	98	4.4	92	4.5	96	4.5	94	4.5	92
5	4.6	92	4.6	92	4.4	90	4.3	90	4.7	93	4.9	83	5.2	88	5.4	93	5.6	89	5.7	95	5.6	95	5.6	96
6	4.9	100	4.7	96	4.6	91	4.8	91	5.0	89	5.2	94	5.1	94	4.9	93	4.6	92	4.5	92	4.5	92	4.4	92
7	4.7	90	4.7	84	4.7	85	4.9	96	4.6	91	4.8	89	5.0	94	4.8	91	4.6	92	4.6	92	4.5	92	4.7	92
8	4.6	92	4.5	88	4.5	90	4.7	96	4.7	90	4.6	74	4.9	80	4.8	74	5.0	75	5.1	82	5.1	82	4.2	72
9	4.4	76	4.3	76	4.4	75	4.4	70	4.6	81	4.8	77	5.2	85	5.1	82	4.7	76	5.0	83	4.9	83	4.9	89
10	5.1	90	5.0	89	4.8	82	4.9	76	4.8	67	4.9	64	5.0	64	4.3	57	4.9	64	4.9	62	4.6	63	5.0	78
11	4.8	74	4.9	72	4.8	70	4.8	67	4.5	62	4.5	65	4.3	57	4.3	56	4.3	55	5.0	66	5.7	79	6.9	99
12	4.2	63	5.6	79	*5.4*	*75*	5.3	70	4.8	62	5.4	63	5.4	70	5.9	78	6.1	79	5.8	81	5.8	77	5.9	87
13	6.3	84	6.0	84	6.0	83	5.9	78	5.6	92	5.8	83	5.4	81	5.3	75	5.3	78	5.3	87	5.7	86	5.4	90
14	5.5	90	5.5	89	5.4	93	5.9	84	5.7	89	5.6	85	6.8	72	6.7	89	7.1	89	6.4	84	7.0	87	6.4	90
15	5.7	98	6.2	97	6.7	94	6.0	94	5.8	89	6.2	87	6.6	90	6.2	88	5.9	88	4.9	78	4.7	80	4.5	73
16	4.5	73	5.0	87	4.9	91	4.9	91	4.6	87	4.7	85	4.3	77	4.6	84	4.7	82	4.5	80	4.3	80	4.4	84
17	4.6	94	4.2	89	4.5	96	4.8	98	4.9	93	4.8	87	4.7	85	5.0	85	4.4	79	4.6	84	4.3	82	4.3	85
18	4.3	89	4.3	90	4.3	94	4.5	96	4.7	96	4.5	88	4.4	84	4.4	85	4.1	82	4.4	89	4.4	89	4.2	90
19	4.1	89	4.2	94	4.2	94	4.3	96	3.3	96	3.8	95	4.1	94	4.5	93	4.6	92	4.5	92	4.4	89	4.4	87
20	4.4	90	4.4	92	4.3	85	4.6	88	4.5	79	4.5	73	4.5	73	4.7	76	4.7	78	4.9	89	4.8	93	4.7	96
21	4.7	100	4.7	96	4.7	96	4.5	92	4.5	80	4.9	80	4.9	96	4.7	85	4.6	75	3.9	59	4.6	77	5.1	93
22	4.3	79	*4.0*	*72*	3.8	64	4.5	77	4.7	78	4.5	71	4.7	74	4.6	71	4.5	71	4.6	74	4.7	82	4.8	87
23	4.8	93	4.8	94	5.0	96	5.0	100	5.1	96	5.2	96	5.1	98	4.7	98	5.4	98	5.2	98	5.0	93	5.1	98
24	4.9	98	4.9	94	4.6	92	4.5	92	4.2	87	4.4	89	4.6	91	4.8	91	4.9	96	4.8	87	5.0	93	4.9	93
25	4.9	93	4.9	94	4.6	91	4.5	89	4.7	93	4.6	85	4.4	84	4.6	85	4.8	89	4.7	91	5.1	96	5.0	95
26	5.0	93	5.0	94	5.2	98	5.3	98	5.1	96	4.7	82	5.0	91	5.1	90	5.2	96	5.1	93	5.3	98	5.1	94
27	5.0	93	5.4	100	5.3	100	5.3	96	5.6	93	5.9	97	5.7	97	5.9	90	5.6	98	5.4	100	5.8	100	5.4	96
28	5.4	98	5.2	98	4.9	93	5.1	94	5.2	91	5.4	88	5.6	90	5.2	88	5.4	88	5.5	93	5.2	98	5.3	93
29	5.2	96	5.0	89	5.1	91	5.3	93	5.1	93	5.0	91	4.9	89	4.9	87	5.0	88	4.8	85	4.9	91	4.7	89
30	4.7	87	4.6	85	4.7	84	4.8	91	5.0	96	5.2	93	4.6	80	4.9	89	4.9	96	4.7	90	4.8	91	4.6	96
31	4.7	100	4.9	98	4.8	98	4.8	94	4.9	89	4.9	87	4.7	77	5.1	82	5.0	83	5.0	85	4.9	88	4.8	93
Mean	4.81	89.7	4.85	89.3	4.83	89.1	4.89	88.9	4.83	87.1	4.91	83.6	4.99	84.0	5.00	84.2	5.02	84.8	4.93	85.6	5.03	87.6	4.98	90.0

1901. August.

Gaasefjord. 1st to 12th $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	4.8	93	4.7	93	4.8	93	4.8	89	4.8	91	4.8	91	4.8	89	4.8	83	4.8	86	4.8	86	4.8	85	4.8	86
2	4.8	80	5.0	85	5.0	85	4.9	83	4.9	83	4.9	87	4.9	87	5.0	89	5.1	93	4.9	89	4.9	89	5.1	93
3	5.6	100	5.3	100	5.5	98	5.6	95	5.4	92	5.2	88	5.3	93	5.3	88	5.1	87	5.3	88	5.2	93	5.3	90
4	4.7	92	5.3	93	4.4	72	5.4	100	5.2	100	5.4	100	5.2	93	5.0	93	5.0	91	5.0	96	5.1	98	4.9	94
5	5.0	96	4.8	94	5.0	100	4.9	98	4.9	94	5.0	98	4.9	94	5.0	95	4.8	96	4.2	92	4.4	96	4.4	96
6	4.4	100	4.4	96	4.1	94	4.8	98	3.7	98	4.8	98	4.8	91	4.7	87	4.6	87	4.3	82	4.3	84	4.8	91
7	4.9	96	4.8	98	4.9	100	4.9	100	4.9	96	4.8	94	5.0	89	5.1	88	4.9	89	4.9	87	4.3	74	4.4	82
8	3.9	72	4.0	77	4.2	82	4.2	77	4.0	70	4.0	62	4.9	83	5.0	100	4.5	99	4.3	99	4.5	98	4.3	98
9	4.0	97	4.0	97	4.1	96	4.3	96	4.6	94	5.1	96	5.2	94	5.4	96	5.1	87	4.9	87	4.7	91	4.5	98
10	4.3	87	4.3	87	4.3	87	4.4	85	4.4	87	4.8	87	4.9	88	4.8	82	5.2	98	5.0	93	5.0	93	4.9	89
11	5.0	100	4.9	100	5.1	96	5.2	94	4.9	96	4.8	98	4.8	91	4.8	96	4.8	94	4.8	100	4.7	98	4.7	96
12	4.7	96	4.7	98	4.8	98	4.4	96	4.3	94	4.4	96	4.4	96	4.4	96	4.6	98	4.4	96	3.7	86	3.8	92
13*	3.4	86	3.7	90	3.8	90	3.8	90	3.5	92	3.5	94	4.2	96	4.7	96	4.6	98	3.2	98	3.7	98	3.6	98
14	3.3	98	3.8	98	3.9	96	3.9	98	3.6	96	4.3	94	4.5	79	4.0	67	4.4	75	4.6	82	4.4	90	4.1	73
15	3.9	90	3.9	94	3.9	92	4.1	92	4.4	92	4.7	82	5.1	87	4.5	84	4.6	91	4.6	87	5.2	93	5.3	94
16	4.8	91	4.6	96	5.1	85	5.3	88	3.8	89	5.5	90	4.3	64	3.9	52	4.0	67	3.6	52	3.7	51	4.0	65
17	5.1	87	4.9	82	4.9	87	4.9	98	4.7	87	4.7	78	4.2	70	4.7	84	4.4	79	4.5	79	4.7	87	4.7	87
18	4.8	96	4.7	94	4.7	94	4.6	92	4.6	91	4.6	91	4.7	90	4.8	94	4.7	93	4.8	98	4.8	98	5.0	100
19	4.7	87	4.7	89	4.7	91	4.6	90	4.5	84	4.5	86	4.6	90	4.2	75	4.2	78	4.1	78	4.4	87	4.2	85
20	4.4	89	4.2	85	4.0	80	4.1	82	4.0	77	4.1	78	4.1	77	4.0	77	4.1	77	4.4	90	4.0	90	4.1	92
21	4.0	92	4.0	92	4.2	98	4.0	89	4.3	96	4.3	94	4.5	96	4.6	94	4.5	94	4.2	89	4.3	94	4.3	96
22	4.3	97	4.2	98	4.0	96	4.2	93	4.2	90	4.5	96	3.7	97	3.7	99	4.6	100	4.1	99	4.0	98	4.1	97
23	4.4	96	4.3	92	3.7	95	3.8	97	4.5	100	3.3	97	3.5	93	3.8	90	4.1	87	4.2	96	4.5	94	4.2	90
24	3.2	92	4.1	94	4.5	98	4.8	98	3.6	84	3.8	83	4.0	82	3.9	77	3.7	73	3.9	78	3.9	83	3.8	80
25	3.8	90	3.7	92	3.6	92	3.8	90	3.8	88	4.0	83	4.2	87	4.4	85	5.0	93	4.1	87	4.2	85	3.6	62
26	3.7	62	3.7	59	4.0	66	4.4	73	4.1	61	4.2	64	5.8	93	4.9	80	4.9	91	4.9	93	4.8	87	4.9	91
27	4.7	93	5.5	96	4.6	82	4.6	88	4.7	85	4.6	81	4.6	78	4.7	82	4.5	84	4.9	100	4.8	98	4.7	97
28	4.5	96	4.6	96	4.2	90	4.1	85	4.0	85	4.4	90	4.1	85	4.6	96	4.2	89	3.8	81	3.5	95	3.8	96
29	3.7	94	3.5	94	3.3	94	3.4	99	3.6	100	3.5	90	3.7	94	3.6	88	3.5	82	3.6	91	3.4	97	3.3	100
30	3.1	95	3.0	89	2.7	84	2.5	87	2.5	91	2.5	90	2.4	82	2.4	84	2.4	80	2.5	89	2.5	89	2.4	89
31	2.1	85	2.1	81	2.2	85	2.3	88	2.7	88	2.8	91	2.9	95	2.8	92	2.8	93	2.6	95	2.6	97	2.5	96
Mean	4.26	91.1	4.31	91.3	4.26	90.2	4.36	91.2	4.23	89.4	4.38	88.6	4.46	87.8	4.44	86.7	4.44	88.0	4.30	88.9	4.29	90.2	4.27	90.1

* From the 13th August to the 5th September under way working southwards in the Gaasefjord.

1901. September.

6th to 30th Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	2.4	83	2.7	93	2.8	93	2.5	83	2.7	80	3.1	80	3.1	66	3.3	78	3.3	75	3.4	89	3.9	78	2.7	68
2	2.7	68	2.7	68	2.7	67	2.8	66	2.8	65	2.8	61	2.9	67	3.0	68	3.4	78	3.4	76	3.1	71	3.2	73
3	3.3	74	3.4	76	3.2	72	3.2	70	3.1	65	4.0	63	3.6	63	4.0	68	4.4	89	4.3	93	4.5	98	4.3	100
4	4.4	100	4.4	100	4.3	100	4.0	94	4.1	94	3.8	96	3.4	86	3.0	73	2.9	86	2.9	85	2.7	91	3.0	96
5	2.5	79	2.7	85	2.6	85	2.5	83	2.6	84	2.8	80	2.9	81	2.8	82	2.9	89	2.7	89	2.6	96	2.1	77
6	2.2	89	2.5	93	2.5	86	2.6	90	2.6	93	2.6	95	2.7	91	2.7	89	2.8	88	2.7	94	2.6	100	2.5	97
7	2.4	98	2.4	91	2.6	90	2.8	92	2.8	95	3.0	100	3.1	100	3.0	100	2.9	100	2.7	100	2.7	100	3.1	100
8	2.8	100	2.9	100	3.0	100	3.1	100	3.2	100	3.4	100	3.6	100	4.1	100	3.8	97	3.8	100	3.6	94	3.6	100
9	3.6	95	3.6	96	3.0	96	2.9	94	2.9	90	3.0	92	3.0	90	2.7	88	2.7	98	2.8	96	2.7	91	2.7	91
10	2.7	93	2.7	92	2.6	92	2.5	92	2.8	93	2.7	89	2.9	88	2.7	86	2.6	87	2.5	91	2.5	86	2.3	93
11	2.3	94	2.4	99	2.4	100	2.5	99	2.5	91	2.5	89	2.4	82	2.3	79	2.4	88	2.3	92	2.3	97	2.3	89
12	2.1	82	2.1	84	1.9	82	2.0	79	2.0	65	2.1	77	2.2	72	2.3	74	2.4	77	2.5	82	2.6	86	2.7	89
13	2.6	84	2.7	87	2.5	81	2.4	84	2.8	95	2.4	92	2.3	85	2.1	81	2.4	90	2.5	92	2.6	93	2.2	92
14	2.1	90	2.1	91	2.0	86	2.0	87	1.8	79	1.9	81	1.9	79	2.0	85	1.8	84	1.7	81	1.6	80	1.6	88
15	1.5	91	1.7	94	1.7	89	1.6	88	1.6	90	1.7	86	1.7	85	1.6	85	1.6	90	1.7	94	1.6	89	1.8	88
16	2.0	93	2.2	100	2.0	91	2.0	90	2.2	95	2.3	95	2.2	97	2.0	95	1.9	100	1.6	95	1.0	93	1.5	95
17	1.5	96	1.4	96	1.3	90	1.3	90	1.4	84	1.5	89	1.6	87	1.7	84	1.8	86	1.7	82	1.7	81	1.7	80
18	1.7	78	1.7	81	1.8	81	1.8	81	1.7	81	1.7	76	1.7	83	1.8	85	1.6	88	1.6	96	1.5	94	1.6	93
19	1.8	91	1.8	98	2.1	100	2.4	100	2.5	99	2.4	99	2.8	100	2.7	100	2.3	99	2.2	99	2.2	95	2.4	100
20	2.4	99	2.5	100	2.3	92	2.4	95	2.4	95	2.5	100	2.3	97	2.1	90	2.0	91	2.1	93	2.0	96	1.7	95
21	1.7	84	1.6	86	1.4	90	1.5	87	1.4	88	1.6	81	1.7	91	1.7	95	1.7	97	1.5	92	1.4	91	1.4	93
22	1.4	96	1.3	93	1.3	95	1.3	94	1.3	95	1.3	94	1.4	92	1.3	94	1.2	94	1.1	96	1.1	91	1.2	91
23	1.2	91	1.3	91	1.4	93	1.5	95	1.5	91	1.6	91	1.7	93	1.5	92	1.5	97	1.5	98	1.5	93	1.5	91
24	1.5	89	1.4	87	1.3	90	1.5	93	1.4	88	1.4	85	1.6	88	1.4	91	1.5	89	1.6	90	1.5	90	1.4	91
25	1.3	95	1.5	99	1.4	96	1.4	93	1.4	92	1.4	88	1.5	88	1.3	89	1.4	90	1.5	93	1.6	95	1.7	95
26	1.8	96	1.8	96	1.9	97	2.1	100	2.0	100	2.1	95	2.0	99	1.9	98	1.9	97	1.9	93	1.8	93	1.8	97
27	1.7	95	1.6	93	1.4	95	1.2	89	1.1	94	1.0	93	1.0	95	0.8	94	0.8	91	0.8	90	0.8	91	0.8	89
28	0.7	92	0.8	91	1.0	91	1.1	93	0.9	91	0.9	92	1.0	93	0.9	92	1.0	93	1.1	91	1.1	88	1.3	96
29	1.3	90	1.2	87	1.3	90	1.2	81	1.2	84	1.3	81	1.2	84	1.3	86	1.4	93	1.5	96	1.4	97	1.4	99
30	1.3	95	1.3	99	1.4	100	1.4	100	1.4	99	1.5	99	1.6	96	1.6	95	1.3	96	1.5	97	1.5	97	1.5	96
Mean	2.10	90.3	2.15	91.9	2.10	90.7	2.12	89.6	2.14	88.6	2.21	88.2	2.23	87.5	2.19	87.7	2.19	90.7	2.17	91.9	2.12	91.4	2.10	91.9

1901. October

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.4	85	1.5	78	1.4	80	1.3	80	1.3	80	1.2	78	1.3	84	1.3	85	1.3	84	1.1	81	1.1	80	1.2	79
2	1.0	78	0.9	79	0.9	78	0.8	80	0.7	77	0.8	78	0.8	79	0.8	84	0.8	83	0.7	84	0.8	83	0.8	80
3	0.8	79	0.8	79	0.6	80	0.8	81	0.9	78	1.2	83	1.2	78	1.1	76	1.1	82	1.0	82	1.1	80	1.0	80
4	1.0	80	1.0	79	1.2	83	1.2	88	1.3	92	1.1	88	1.0	86	1.0	87	1.0	92	1.0	92	1.0	90	1.0	90
5	1.0	91	1.1	92	1.1	92	1.1	92	1.0	93	1.0	91	1.0	92	1.0	93	1.1	93	1.1	93	1.1	92	1.1	93
6	1.1	92	1.1	93	1.0	93	1.1	94	1.3	93	1.4	88	1.4	87	1.4	88	1.4	85	1.3	86	1.1	87	1.3	86
7	1.2	87	1.3	86	1.2	88	1.2	88	1.1	87	1.2	83	1.2	82	1.2	77	1.0	87	0.9	88	0.8	88	0.8	82
8	0.7	85	0.6	87	0.6	82	0.6	80	0.6	78	0.6	73	0.7	76	0.7	74	0.8	73	0.8	73	0.8	76	0.9	77
9	0.9	76	1.0	74	0.9	74	0.8	84	0.8	81	0.8	78	0.8	79	0.7	78	0.7	75	0.7	77	0.7	75	0.7	76
10	0.7	80	0.8	74	0.7	80	0.7	78	0.7	79	0.7	79	0.7	76	0.7	80	0.7	76	0.7	79	0.7	79	0.8	78
11	0.8	79	0.8	76	0.8	87	0.7	76	0.8	75	0.7	77	0.8	78	0.8	77	0.9	80	0.9	81	1.0	83	1.0	83
12	0.9	78	1.1	81	1.1	85	1.1	86	1.2	89	1.1	84	1.0	85	1.0	79	1.0	79	1.0	80	1.0	80	0.9	83
13	1.1	88	1.0	86	0.9	84	0.8	86	0.8	86	0.9	90	1.0	87	0.8	84	0.8	81	0.8	84	0.8	79	0.9	78
14	0.8	78	0.8	77	0.8	76	0.8	80	0.9	82	0.9	84	1.0	87	1.0	88	1.0	88	1.0	90	1.0	91	1.0	90
15	1.1	89	1.1	88	1.1	87	1.2	83	1.1	84	1.1	87	1.2	93	1.1	88	1.0	92	1.0	88	1.0	87	0.7	86
16	0.7	85	0.6	85	0.6	85	0.6	83	0.7	82	0.7	82	0.8	83	0.8	84	0.9	86	1.1	89	1.2	92	1.3	93
17	1.4	97	1.4	97	1.5	98	1.5	98	*1.5*	*94*	1.4	90	1.3	88	1.3	87	1.3	85	1.3	86	1.1	80	1.1	81
18	1.1	81	1.0	79	1.1	81	1.0	81	1.0	81	1.0	81	1.1	92	0.9	86	0.8	85	0.7	83	0.8	84	0.7	83
19	0.6	83	0.6	81	0.6	82	*0.6*	*82*	0.5	81	0.7	83	0.8	83	0.7	84	0.8	83	0.6	80	0.7	84	0.7	85
20	0.7	85	0.6	83	0.6	82	*0.6*	*82*	*0.6*	*82*	*0.6*	*82*	*0.6*	*82*	*0.6*	*82*	*0.6*	*82*	0.6	82	0.6	85	0.6	86
21	0.6	86	0.6	86	0.6	86	0.5	87	0.5	87	0.5	87	0.5	86	0.5	87	0.5	87	0.5	86	0.5	87	0.6	87
22	0.5	86	0.5	87	0.5	86	0.4	85	0.5	85	0.5	85	0.4	85	0.4	85	0.4	84	0.4	84	0.4	84	0.4	84
23	0.4	84	0.4	84	0.4	84	0.4	84	0.4	85	0.4	85	0.5	85	0.5	86	0.4	85	0.4	85	0.4	86	0.4	85
24	0.3	84	0.4	84	0.5	85	0.5	85	0.5	86	0.5	85	0.5	85	0.5	85	0.4	85	0.4	84	0.4	85	0.5	85
25	0.5	86	0.5	86	0.5	85	0.5	85	0.6	86	0.5	80	0.5	79	0.5	82	0.5	85	0.6	85	0.5	82	0.5	83
26	0.6	81	0.5	83	0.5	85	0.5	83	0.5	82	0.5	80	0.5	80	0.4	82	0.4	80	0.5	79	0.4	80	0.5	78
27	0.5	78	0.6	78	0.6	78	0.6	80	0.6	80	0.5	83	0.5	83	0.5	85	0.5	84	0.5	82	0.5	84	0.5	78
28	0.5	82	0.5	81	0.5	81	0.5	80	0.6	81	0.6	82	0.6	83	0.6	84	0.6	84	0.6	84	0.6	84	0.6	83
29	0.5	84	0.5	85	0.5	86	0.5	86	0.5	85	0.5	86	0.8	86	1.1	70	1.3	75	1.4	75	1.4	85	1.4	85
30	1.4	83	1.4	78	1.5	81	1.4	72	1.6	87	1.5	83	1.5	77	1.4	90	1.4	92	1.3	93	1.2	87	0.9	90
31	0.8	88	0.8	84	0.7	85	0.6	85	0.6	84	0.5	84	0.6	84	0.6	84	0.6	84	0.5	85	0.5	83	0.6	84
Mean	0.82	84.0	0.83	83.0	0.82	84.0	0.80	83.7	0.86	84.0	0.83	83.2	0.86	83.6	0.84	83.3	0.86	83.8	0.82	84.0	0.81	84.0	0.82	83.7

1901. November.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.6	85	0.6	81	0.5	81	0.6	80	0.5	83	0.5	84	0.5	83	0.6	86	0.5	81	0.5	82	0.5	85	0.4	84
2	0.4	85	0.5	85	0.5	84	0.6	85	0.6	86	0.6	85	0.6	84	0.5	83	0.5	84	0.4	84	0.5	86	0.5	85
3	0.5	85	0.6	80	0.5	82	0.6	83	0.6	85	0.6	85	0.6	86	0.7	86	0.7	84	0.6	76	0.6	80	0.6	83
4	0.5	73	0.5	76	0.5	72	0.4	79	0.4	81	0.3	80	0.3	80	0.4	77	0.4	74	0.5	75	0.6	85	0.6	81
5	0.5	84	0.5	86	0.5	86	0.5	84	0.6	85	0.8	85	0.6	86	0.5	85	0.6	87	0.6	85	0.5	82	0.5	85
6	0.5	83	0.5	84	0.6	84	0.7	84	0.8	84	0.8	85	0.8	86	1.0	89	1.0	89	1.1	91	1.1	9[illegible]	0.9	94
7	1.0	94	0.9	93	1.0	93	1.0	86	1.5	86	1.0	85	1.0	93	1.0	94	0.9	91	0.9	89	0.8	91	0.8	92
8	0.8	91	0.8	91	0.7	92	0.7	91	0.7	90	0.8	88	0.8	87	0.8	86	0.8	84	0.8	85	0.8	85	0.8	80
9	0.8	77	0.8	76	0.9	75	0.8	78	0.8	77	0.6	69	0.6	78	0.6	76	0.5	80	0.4	80	0.5	86	0.6	85
10	0.6	85	1.2	71	1.3	75	1.3	70	1.2	78	1.2	66	1.0	75	0.9	73	0.8	74	0.9	81	0.9	81	1.0	71
11	0.9	78	0.9	78	0.8	78	0.8	81	0.8	85	0.9	85	1.4	78	*1.4*	*76*	*1.4*	*74*	*1.3*	*72*	*1.3*	*71*	*1.3*	*70*
12	*1.3*	*70*	*1.3*	*69*	*1.2*	*67*	*1.2*	*65*	1.2	63	1.2	62	1.4	67	1.6	84	*1.6*	*84*	*1.7*	*84*	*1.8*	*85*	*1.9*	*85*
13	1.9	85	2.0	85	1.7	95	1.1	88	0.8	85	0.7	80	0.6	77	0.6	74	0.6	70	0.7	76	0.7	80	0.7	78
14	0.7	79	0.7	82	0.7	81	0.6	82	0.5	77	0.5	74	0.4	78	0.4	78	0.4	78	0.4	81	0.4	81	0.4	80
15	0.5	83	0.5	84	0.5	83	0.5	81	0.5	80	0.5	83	0.5	84	0.6	83	0.6	82	0.5	82	0.5	80	0.5	83
16	0.5	86	0.6	85	0.6	86	0.5	81	0.6	82	0.6	82	0.6	84	0.6	88	0.6	85	0.7	85	0.7	83	0.8	78
17	1.2	63	0.8	60	0.8	58	0.8	56	0.8	54	0.8	52	0.8	52	0.8	56	0.9	61	0.9	60	0.8	62	1.1	86
18	1.1	91	1.0	92	1.0	93	1.0	94	1.0	95	1.0	94	0.9	89	1.0	87	0.8	87	0.8	87	0.7	87	0.7	84
19	0.6	85	0.6	85	0.6	85	0.5	86	0.6	86	0.6	86	0.5	89	0.5	86	0.5	86	0.5	87	0.5	87	0.4	85
20	0.4	84	0.4	83	0.4	81	0.5	81	0.4	82	0.4	91	0.4	94	0.3	95	0.3	96	0.3	96	0.3	96	0.3	95
21	0.3	95	0.3	96	0.4	95	0.4	97	0.4	97	0.4	97	0.4	97	0.4	97	0.4	98	0.4	98	0.4	98	0.4	98
22	0.4	99	0.3	98	0.3	99	0.3	98	*0.3*	*94*	*0.3*	*89*	*0.3*	*84*	*0.2*	*80*	*0.2*	*75*	0.2	71	*0.2*	*71*	*0.2*	*71*
23	*0.2*	*71*	*0.2*	*71*	*0.2*	*70*	*0.2*	*70*	*0.2*	*70*	*0.2*	*70*	0.2	70	0.2	76	0.2	78	0.2	79	0.2	81	0.2	81
24	0.3	84	0.2	83	0.3	82	0.3	82	0.3	81	0.2	81	0.2	81	0.2	82	0.2	83	0.2	83	0.2	86	0.2	85
25	0.2	85	0.2	85	0.2	86	0.2	85	0.2	85	0.2	86	0.2	85	0.3	85	0.3	86	0.3	87	0.2	86	0.2	81
26	0.2	84	0.2	84	0.2	84	0.2	85	0.2	84	0.2	84	0.2	84	0.3	83	0.3	80	0.3	82	0.3	83	0.3	84
27	0.3	86	0.3	86	0.3	86	0.3	83	0.3	83	0.3	82	0.3	82	0.3	82	0.3	82	0.3	82	0.3	85	0.2	86
28	0.2	86	0.2	86	0.2	86	0.2	86	0.3	84	0.3	83	0.3	82	0.3	83	0.2	86	0.2	86	0.2	86	0.3	87
29	0.2	88	0.2	86	0.3	86	0.2	87	0.3	87	0.3	85	0.3	87	0.3	87	0.3	88	0.3	88	0.3	85	0.3	85
30	0.3	89	0.3	89	0.4	90	0.4	90	0.3	89	0.3	89	0.2	88	0.2	88	0.2	89	0.2	90	0.2	89	0.2	89
Mean	0.60	83.9	0.60	83.1	0.60	83.4	0.58	82.7	0.59	82.7	0.57	81.7	0.56	82.1	0.58	82.9	0.57	82.3	0.57	82.8	0.57	83.9	0.58	83.9

1901. December.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	89	0.2	90	0.3	90	0.3	90	0.2	89	0.2	88	0.2	89	0.3	91	0.3	90	0.3	90	0.3	91	0.3	91
2	0.3	91	0.3	91	0.4	81	0.3	84	0.3	79	0.3	84	0.4	85	0.3	76	0.3	78	0.3	76	0.3	75	0.3	80
3	0.3	84	0.3	86	0.3	85	0.3	84	0.2	82	0.2	81	0.2	81	0.2	81	0.3	83	0.2	80	0.2	83	0.2	86
4	0.2	84	0.2	84	0.1	81	0.2	84	0.2	84	0.2	81	0.3	81	0 3	83	0.4	83	0.4	83	0.4	81	0.4	83
5	0.4	81	0.4	83	0.4	85	0.4	83	0.4	82	0.5	83	0.5	83	0.5	87	0.5	86	0.5	85	0.4	86	0.4	83
6	0.4	81	0.4	82	0.4	85	0.4	85	0.4	88	0.4	89	0.5	91	0.5	91	0.6	92	0.6	89	0.6	89	0.6	90
7	0.6	91	0.6	94	0.7	96	0.7	96	0.7	96	0.7	97	0.7	97	0.7	95	0.7	91	0.5	94	0.4	93	0.3	92
8	0.3	90	0.3	91	0.2	90	0.3	90	0.3	91	0.4	93	0.4	93	0.4	90	0.3	89	0.3	88	0.2	86	0.2	86
9	0.2	87	0.3	85	0.3	90	0.3	91	0.4	91	0.8	93	0.8	94	0.5	92	0.5	97	0.6	97	0.6	99	0.5	99
10	0.5	99	0.5	98	0.5	99	0.5	98	0.7	99	0.7	99	0.7	99	0.7	97	0.7	96	0.7	93	0.9	97	1.1	98
11	1.0	99	1.0	100	0.9	98	0.8	99	0.6	99	0.7	99	0.7	98	0.7	96	0.7	97	0.7	93	0.6	96	0.7	93
12	0.6	98	0.5	94	0.5	93	0.5	93	0.3	92	0.4	91	0.3	90	0.4	90	0.3	89	0.3	89	0.3	88	0.3	87
13	0.3	86	0.2	86	0.2	85	0.3	88	0.2	88	0.3	89	0.2	88	0.3	89	0.2	89	0.3	89	0.3	90	0.3	90
14	0.2	89	0.2	87	0.2	85	0.2	84	0.2	85	0.2	87	0.3	87	0.3	89	0.4	90	0.5	92	0.4	92	0.3	91
15	0.3	90	0.3	93	0.4	94	0.4	92	0.3	92	0.3	90	0.3	91	0.3	86	0.4	86	0.4	84	0.4	83	0 4	88
16	0.4	85	0.4	84	0.4	86	0.4	86	0.6	88	0.6	89	0.6	86	0.6	87	0.6	84	0.7	86	0.7	90	0.7	94
17	0.7	93	0.7	88	0.7	95	0.6	95	0.6	96	0.6	97	0.6	95	0.6	98	0.5	97	0.6	94	0.6	98	0.5	92
18	0.4	90	0.3	88	0.3	87	0.3	86	0.3	86	0.3	86	0.3	86	0.3	85	0.3	85	0.3	88	0.3	87	0.3	89
19	0.3	90	0.3	91	0.3	91	0.2	91	0.2	90	0.3	92	0.3	87	0.2	86	0.2	89	0.3	92	0.2	89	0.3	83
20	0.3	82	0.2	87	0.2	87	0.2	86	0.2	87	0.2	88	0.3	87	0.3	88	0.3	88	0.3	91	0.2	91	0.2	93
21	0.2	92	0.3	90	0.3	90	0.3	91	0.3	92	0.3	91	0.2	91	0.2	91	0.3	91	0.2	92	0.2	92	0.2	92
22	0.2	92	0.2	91	0.2	91	0.2	91	0.2	91	0.2	90	0.2	90	0.2	91	0.2	89	0.2	91	0.3	92	0.2	92
23	0.3	92	0.3	94	0.3	94	0.3	93	0.3	91	0.3	91	0.3	89	0.3	90	0.3	89	0.4	89	0.4	88	0.3	91
24	0.4	90	0.3	85	0.5	86	0.4	89	0.4	95	0.5	90	0.5	89	0.4	95	0.4	91	0.3	90	0.4	90	0.4	93
25	0.4	92	0.5	95	0.5	96	0.5	85	0.5	82	0.4	71	0.3	55	0.2	53	0.3	60	0.4	81	0.3	82	0.3	82
26	0.4	86	0.4	87	0.3	84	0.4	87	0.3	90	0.3	92	0.3	93	0.3	93	0.3	93	0.2	92	0.2	92	0.2	92
27	0.2	91	0.2	91	0.2	92	0.2	91	0.2	91	0.2	91	0.2	89	0.2	89	0.3	90	0.3	91	0.4	80	0.4	82
28	0.4	70	0.4	74	0.4	80	0.4	89	0.4	90	0.4	90	0.4	85	0.4	82	0.5	82	0.5	82	0.6	84	0.6	85
29	0.3	85	0.5	92	0.4	87	0.4	86	0.3	92	0.2	86	0.2	86	0.3	86	0.2	83	0.2	83	0.2	82	0.2	86
30	0.2	85	0.2	88	0.2	89	0.2	91	0.2	92	0.2	92	0.2	93	0.3	92	0.3	92	0.3	91	0.3	91	0.3	92
31	0.3	91	0.3	89	0.3	87	0.3	85	0.2	81	0.3	89	0.3	85	0.3	81	0.3	81	0.3	80	0.3	82	0.3	81
Mean	0.36	88.6	0.36	89.1	0.36	89.1	0.36	89.2	0.34	89.4	0.37	89.4	0.38	88.3	0.37	87.9	0.38	87.8	0.39	88.4	0.38	88.4	0.38	89.0

1902. January.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	72	0.2	80	0.2	77	0.2	76	0.2	73	0.2	76	0.2	75	0.2	76	0.2	76	0.2	75	0.2	85	0.2	83
2	0.2	82	0.2	84	0.2	85	0.2	88	0.2	86	0.1	87	0.2	88	0.2	88	0.2	89	0.1	88	0.1	89	0.1	90
3	0.1	89	0.1	89	0.1	89	0.1	88	0.1	89	0.1	88	0.1	87	0.1	86	0.1	86	0.1	86	0.1	91	0.1	89
4	0.1	89	0.1	88	0.1	87	0.1	91	0.1	89	0.1	87	0.1	87	0.1	87	0.1	87	0.1	88	0.1	88	0.1	88
5	0.1	88	0.1	88	0.1	88	0.1	88	0.1	88	0.1	89	0.1	88	0.1	88	0.1	88	0.1	88	0.1	89	0.1	89
6	0.1	90	0.1	90	0.1	90	0.1	88	0.1	85	0.1	82	0.1	80	0.1	86	0.1	90	0.1	93	0.1	94	0.1	96
7	0.1	98	0.1	98	0.1	99	0.1	99	0.1	99	0.1	99	0.1	99	0.1	99	0.0	100	0.0	100	0.1	65	0.1	72
8	0.1	72	0.1	75	0.1	74	0.2	73	0.1	76	0.1	75	0.1	75	0.1	74	0.1	75	0.1	75	0.1	76	0.2	76
9	0.1	76	0.2	77	0.2	78	0.2	81	0.2	80	0.2	78	0.2	79	0.1	78	0.1	79	0.1	78	0.1	78	0.1	79
10	0.1	79	0.1	79	0.1	78	0.1	78	0.1	79	0.1	79	0.1	80	0.2	80	0.2	80	0.2	83	0.2	84	0.2	83
11	0.2	83	0.2	82	0.2	83	0.2	83	0.2	83	0.2	83	0.2	83	0.2	83	0.2	83	0.2	83	0.3	83	0.3	83
12	0.3	80	0.3	80	0.3	81	0.2	80	0.2	81	0.2	80	0.3	76	0.2	81	0.2	81	0.2	82	0.2	77	0.2	82
13	0.2	80	0.2	81	0.2	82	0.2	84	0.1	84	0.1	84	0.2	85	0.1	85	0.2	84	0.2	84	0.2	85	0.2	85
14	0.2	83	0.2	82	0.2	83	0.2	86	0.2	86	0.2	85	0.2	87	0.2	86	0.1	85	0.2	86	0.2	86	0.2	86
15	0.2	86	0.2	83	0.2	86	0.2	86	0.2	86	0.2	85	0.2	84	0.1	84	0.1	84	0.1	85	0.1	85	0.1	85
16	0.1	84	0.1	84	0.2	85	0.2	84	0.2	84	0.2	84	0.2	84	0.2	85	0.2	85	0.2	87	0.2	88	0.2	88
17	0.2	88	0.2	87	0.2	85	0.2	86	0.2	86	0.2	86	0.2	85	0.2	87	0.2	87	0.3	87	0.3	89	0.3	87
18	0.3	86	0.3	86	0.2	84	0.2	85	0.2	88	0.2	89	0.2	90	0.2	89	0.2	89	0.2	89	0.2	89	0.2	87
19	0.1	87	0.2	86	0.1	87	0.1	87	0.1	88	0.1	86	0.1	88	0.1	87	0.1	88	0.1	88	0.1	87	0.1	82
20	0.1	87	0.1	86	0.1	87	0.1	87	0.1	87	0.1	87	0.1	86	0.1	85	0.1	86	0.1	85	0.2	89	0.1	87
21	0.1	89	0.1	89	0.1	88	0.1	87	0.1	88	0.1	87	0.1	87	0.1	86	0.1	86	0.1	86	0.1	85	0.1	84
22	0.1	85	0.1	84	0.1	85	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86	0.1	86
23	0.1	86	0.1	85	0.1	85	0.1	84	0.1	84	0.1	85	0.1	85	0.1	85	0.1	86	0.1	86	0.1	86	0.1	86
24	0.1	86	0.1	86	0.1	85	0.1	86	0.1	88	0.1	88	0.1	88	0.1	88	0.1	87	0.1	87	0.1	87	0.1	86
25	0.1	86	0.2	86	0.2	86	0.2	86	0.2	82	0.2	82	0.2	85	0.2	86	0.2	86	0.2	86	0.2	86	0.2	85
26	0.2	86	0.2	88	0.2	90	0.2	89	0.2	92	0.3	91	0.2	90	0.2	90	0.2	90	0.2	90	0.2	90	0.2	91
27	0.3	91	0.2	91	0.3	91	0.4	91	0.3	89	0.4	89	0.5	89	0.3	89	0.3	89	0.3	89	0.3	89	0.2	88
28	0.2	90	0.2	89	0.2	89	0.2	89	0.2	89	0.2	89	0.3	89	0.3	89	0.3	90	0.2	80	0.2	81	0.2	81
29	0.2	81	0.2	83	0.3	83	0.2	85	0.4	88	0.3	89	0.3	90	0.3	90	0.3	91	0.3	91	0.4	90	0.3	90
30	0.3	91	0.3	90	0.3	91	0.2	91	0.2	91	0.3	91	0.3	89	0.2	90	0.2	91	0.2	89	0.2	90	0.2	82
31	0.2	87	0.2	86	0.2	88	0.2	82	0.2	82	0.2	88	0.1	84	0.1	84	0.2	85	0.2	84	0.2	84	0.2	84
Mean	0.16	85.1	0.17	85.4	0.17	85.6	0.17	85.7	0.16	85.8	0.17	85.7	0.18	85.5	0.16	85.8	0.16	86.2	0.16	86.1	0.17	85.6	0.16	85.3

1902. February.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	83	0.2	81	0.2	80	0.2	80	0.2	80	0.2	80	0.2	80	0.2	80	0.2	81	0.2	81	0.2	81	0.2	81
2	0.2	81	0.2	88	0.2	90	0.2	90	0.2	91	0.2	91	0.2	91	0.2	91	0.2	90	0.2	91	0.2	91	0.2	89
3	0.2	89	0.2	88	0.2	88	0.3	87	0.2	88	0.2	88	0.2	89	0.2	89	0.2	90	0.2	90	0.2	90	0.2	90
4	0.2	90	0.2	90	0.1	90	0.2	91	0.2	91	0.2	91	0.2	91	0.1	91	0.1	91	0.1	91	0.2	91	0.2	90
5	0.2	91	0.2	91	0.2	91	0.2	90	0.1	90	0.2	91	0.2	91	0.2	91	0.2	91	0.3	91	0.3	93	0.3	88
6	0.3	88	0.3	94	0.3	94	0.3	93	0.3	94	0.2	94	0.3	94	0.3	94	0.3	94	0.2	94	0.2	94	0.3	94
7	0.3	95	0.3	94	0.3	94	0.3	95	0.3	95	0.3	95	0.4	91	0.4	91	0.4	91	0.6	80	0.5	84	0.6	86
8	0.6	85	0.6	80	0.7	71	0.9	76	0.8	75	0.7	80	0.8	85	1.0	95	1.0	96	1.0	96	1.0	96	0.9	98
9	0.9	98	1.0	100	0.9	98	0.9	100	1.2	87	1.2	78	1.1	72	0.8	84	0.9	91	0.8	85	0.9	87	0.7	85
10	0.8	82	*0.8*	*83*	0.8	84	0.8	85	0.8	83	0.9	86	0.8	86	0.8	87	0.7	87	0.7	87	0.8	90	0.8	90
11	1.0	91	1.0	95	1.1	100	1.1	100	0.8	84	0.8	85	0.8	85	1.0	90	0.9	88	0.8	83	1.0	92	0.9	93
12	0.8	92	0.8	92	0.7	92	0.7	89	0.8	100	0.8	100	0.8	100	0.7	99	0.6	98	0.6	100	0.6	99	0.6	100
13	*0.6*	*100*	0.6	100	0.6	100	*0.5*	*92*	0.5	83	0.5	83	0.5	84	0.4	84	0.4	84	0.4	84	0.4	84	0.3	84
14	0.3	84	0.3	84	0.2	85	0.2	83	0.2	84	0.2	83	0.2	84	0.2	83	0.2	84	0.2	84	0.2	85	0.2	85
15	0.3	84	0.2	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	84	0.3	83	0.3	84
16	0.2	83	0.2	84	0.2	84	0.2	84	0.1	81	0.1	79	0.1	80	0.1	78	0.1	79	0.1	79	0.1	79	0.1	75
17	0.1	78	0.1	78	0.1	77	0.1	77	0.1	78	0.1	75	0.1	75	0.1	77	0.1	76	0.1	77	0.1	76	0.1	75
18	0.1	75	0.1	75	0.1	75	0.1	74	0.1	73	0.1	75	0.1	75	0.1	75	0.1	75	0.1	76	0.1	76	0.1	76
19	0.1	75	0.1	74	0.1	75	0.1	75	0.1	75	0.1	76	0.1	75	0.1	76	0.1	75	0.1	76	0.1	76	0.1	75
20	0.1	76	0.1	76	0.1	76	0.1	75	0.1	75	0.1	75	0.1	76	0.2	77	0.2	76	0.2	76	0.1	77	*0.1*	*78*
21	0.1	80	0.1	80	0.2	79	0.2	77	0.3	75	0.3	76	0.3	77	0.3	77	0.3	78	0.4	79	0.3	79	0.4	80
22	0.4	83	0.4	83	0.5	83	0.5	87	0.5	82	0.6	81	0.6	82	0.7	85	0.6	82	0.6	82	0.6	84	0.6	80
23	0.6	82	0.5	83	0.5	83	0.6	84	0.7	86	0.6	84	0.6	83	0.6	81	0.6	82	0.6	86	0.4	84	0.7	73
24	0.6	71	0.4	63	0.4	72	0.4	68	0.4	70	0.3	72	0.4	71	0.3	72	0.3	75	0.3	76	0.3	75	0.3	75
25	0.3	75	0.3	79	0.3	78	0.3	78	0.3	75	0.3	77	0.3	75	0.4	73	0.3	75	0.3	77	0.2	76	0.2	76
26	0.2	77	0.2	77	0.2	77	0.2	76	0.2	74	0.2	75	0.2	76	0.2	75	0.2	78	0.2	76	0.2	76	0.2	78
27	0.2	76	0.2	76	0.1	75	0.1	75	0.1	76	0.1	75	0.1	75	0.1	77	0.1	77	0.1	77	0.2	77	0.2	77
28	0.2	77	0.2	76	0.2	77	0.2	76	0.2	77	0.2	76	0.2	77	0.2	78	0.2	78	0.2	78	0.2	78	0.2	77
Mean	0.36	83.7	0.35	84.0	0.35	84.2	0.36	83.8	0.36	82.6	0.36	82.4	0.36	82.5	0.36	83.5	0.35	83.9	0.35	83.6	0.35	84.2	0.36	83.4

1902. March.

Gaasefjord. $\varphi = 76^\circ 40' N.$ $\lambda = 88^\circ 38' W.$

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	76	0.2	77	0.2	76	0.2	76	0.1	75	0.1	76	0.1	74	0.1	74	0.1	74	0.1	75	0.1	75	0.1	74
2	0.1	74	0.1	75	0.1	75	0.1	74	0.1	74	0.1	73	0.1	73	0.1	73	0.1	73	0.1	74	0.1	73	0.1	75
3	0.1	75	0.1	75	0.1	74	0.1	75	0.1	75	0.1	75	0.1	74	0.1	74	0.1	73	0.1	74	0.1	74	0.1	76
4	0.1	75	0.1	75	0.1	74	0.1	74	0.1	74	0.1	75	0.1	74	0.1	75	0.1	76	0.1	76	0.1	77	0.1	75
5	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	74	0.1	74	0.1	74
6	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	72	0.1	74	0.1	75	0.1	75	0.1	76	0.1	76
7	0.1	75	0.1	75	0.1	75	0.1	74	0.1	74	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	76	0.1	76
8	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	73	0.1	74	0.1	77	0.1	75	0.1	72	0.1	75
9	0.1	75	0.1	74	0.1	70	0.1	72	0.1	73	0.1	73	0.1	73	0.1	74	0.1	75	0.1	77	0.1	76	0.1	75
10	0.1	76	0.1	75	0.1	75	0.1	75	0.1	75	0.1	74	0.1	72	0.1	72	0.1	75	0.1	75	0.1	76	0.1	76
11	0.1	75	0.1	74	0.1	74	0.1	74	0.1	75	0.1	74	0.1	72	0.1	73	0.1	74	0.1	74	0.1	74	0.1	74
12	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	73	0.1	74	0.1	73	0.1	74	0.1	75
13	0.1	73	0.1	73	0.1	74	0.1	73	0.1	73	0.1	73	0.1	72	0.1	74	0.1	73	0.1	74	0.1	74	0.1	73
14	0.1	73	0.1	74	0.1	73	0.1	73	0.1	73	0.1	74	0.1	73	0.1	74	0.1	74	0.1	72	0.1	73	0.1	72
15	0.1	73	0.1	71	0.1	71	0.1	72	0.1	74	0.1	74	0.1	75	0.1	74	0.1	74	0.1	73	0.1	73	0.1	74
16	0.1	75	0.1	74	0.1	74	0.1	74	0.1	74	0.1	74	0.1	75	0.1	75	0.1	74	0.1	74	0.1	74	0.1	73
17	0.1	73	0.1	74	0.1	73	0.1	73	0.1	73	0.1	74	0.1	74	0.1	74	0.1	73	0.1	71	0.1	71	0.1	73
18	0.1	73	0.1	72	0.1	72	0.1	72	0.1	72	0.1	71	0.1	71	0.1	73	0.1	73	0.1	75	0.1	75	0.1	74
19	0.1	72	0.1	72	0.1	72	0.1	71	0.1	69	0.1	58	0.1	53	0.1	42	0.1	36	0.1	37	0.1	46	0.1	50
20	0.1	51	0.2	56	0.2	65	0.2	60	0.2	71	0.2	67	0.2	69	0.2	65	0.2	63	0.2	65	0.2	63	0.3	61
21	0.3	61	0.3	60	0.3	60	0.3	63	0.3	62	0.3	62	0.3	73	0.2	74	0.2	73	0.2	75	0.1	75	0.2	76
22	0.2	76	0.2	76	0.1	77	0.1	77	0.1	72	0.2	72	0.2	72	0.1	75	0.2	77	0.2	77	0.2	76	0.2	73
23	0.2	70	0.5	67	0.4	65	0.5	68	0.5	68	0.5	69	0.5	70	0.6	67	0.5	65	0.6	70	0.7	67	0.6	62
24	0.7	66	0.7	70	0.8	74	0.9	78	0.9	82	0.8	82	1.0	82	0.9	82	1.0	82	1.0	82	0.9	82	0.8	82
25	0.8	82	0.8	82	0.8	83	0.8	83	0.8	83	0.8	82	1.0	76	0.8	73	0.8	81	0.8	82	0.9	76	1.0	77
26	0.7	74	0.8	72	0.7	74	0.8	71	0.8	70	0.8	70	0.8	70	0.8	74	0.7	75	0.8	78	0.8	77	0.7	77
27	0.7	81	0.7	83	0.7	82	0.6	77	0.6	76	0.8	76	0.7	72	0.5	73	0.5	76	0.4	77	0.3	77	0.3	77
28	0.3	75	0.2	72	0.2	74	0.2	73	0.2	74	0.2	74	0.2	73	0.2	74	0.2	75	0.2	76	0.2	76	0.2	74
29	0.2	74	0.2	72	0.2	72	0.2	74	0.2	74	0.2	73	0.3	72	0.3	72	0.2	72	0.2	68	0.2	73	0.2	72
30	0.2	70	0.2	71	0.1	72	0.1	72	0.2	72	0.2	73	0.2	72	0.2	72	0.2	72	0.1	70	0.1	72	0.1	72
31	0.1	73	0.1	74	0.2	74	0.2	72	0.2	72	0.2	72	0.3	72	0.3	74	0.3	72	0.3	73	0.3	73	0.2	74
Mean	0.21	73.1	0.22	73.1	0.23	73.4	0.22	73.4	0.22	73.6	0.23	73.2	0.25	72.7	0.23	72.6	0.22	73.0	0.22	73.2	0.22	73.3	0.22	73.3

1902. April.

Gaasefjord. $\varphi = 76^\circ 40' $ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	0.2	72	0.2	72	0.2	73	0.2	71	0.2	71	0.2	67	0.2	71	0.2	73	0.2	75	0.2	75	0.1	73	0.1	73
2	0.1	73	0.2	75	0.2	75	0.2	75	0.2	73	0.2	72	0.2	71	0.2	70	0.1	69	0.1	65	0.1	68	0.1	65
3	0.1	63	0.1	67	0.1	70	0.2	67	0.2	69	0.2	68	0.2	67	0.2	68	0.1	70	0.1	70	0.2	68	0.2	65
4	0.1	67	0.1	70	0.1	70	0.1	69	0.2	66	0.2	66	0.2	64	0.2	68	0.2	70	0.2	67	0.2	71	0.1	72
5	0.1	71	0.1	70	0.1	71	0.2	69	0.2	68	0.2	67	0.2	67	0.2	67	0.2	68	0.2	73	0.2	75	0.3	72
6	0.2	75	0.2	75	0.2	75	0.2	74	0.2	73	0.3	70	0.3	76	0.3	69	0.3	65	0.2	68	0.2	69	0.2	72
7	0.1	72	0.1	72	0.2	70	0.2	73	0.3	73	0.3	74	0.3	76	0.3	74	0.3	73	0.3	75	0.2	75	0.2	77
8	0.2	77	0.2	76	0.2	73	0.2	73	0.2	71	0.2	71	0.2	70	0.3	71	0.3	69	0.2	71	0.2	73	0.2	72
9	0.2	73	0.2	75	0.3	72	0.3	73	0.2	71	0.3	69	0.2	71	0.2	68	0.2	69	0.2	71	0.2	70	0.2	75
10	0.2	76	0.2	74	0.2	73	0.2	72	0.2	70	0.2	70	0.2	71	0.2	69	0.2	69	0.2	71	0.2	71	0.2	74
11	0.2	72	0.2	73	0.2	72	0.2	72	0.2	74	0.3	70	0.3	73	0.3	73	0.3	74	0.3	73	0.3	75	0.3	76
12	0.3	77	0.2	78	0.2	76	0.3	70	0.3	68	0.4	61	0.4	60	0.4	61	0.3	68	0.3	68	0.2	71	0.2	72
13	0.2	72	0.2	74	0.2	73	0.2	70	0.3	70	0.3	70	0.4	68	0.4	66	0.3	63	0.3	72	0.2	73	0.2	70
14	0.2	68	0.2	73	0.2	74	0.3	73	0.3	74	0.3	73	0.3	73	0.4	76	0.3	73	0.3	73	0.3	76	0.3	76
15	0.3	75	0.3	79	0.3	80	0.4	73	0.4	76	0.4	70	0.4	70	0.4	64	0.4	72	0.4	78	0.4	78	0.4	76
16	0.3	79	0.3	80	0.4	77	0.4	75	0.4	73	0.6	68	0.6	65	0.5	68	0.5	75	0.5	78	0.4	83	0.4	85
17	0.4	86	0.4	83	0.6	80	0.7	76	0.7	76	0.6	74	0.6	77	0.6	74	0.5	77	0.5	82	0.4	82	0.5	81
18	0.4	81	0.4	82	0.5	79	0.5	79	0.5	77	0.5	77	0.5	77	0.5	79	0.4	80	0.4	82	0.4	83	0.3	82
19	0.3	82	0.3	83	0.3	82	0.4	78	0.4	78	0.5	77	0.5	76	0.5	76	0.4	72	0.4	75	0.4	78	0.4	78
20	0.4	78	0.4	79	0.4	70	0.4	71	0.5	71	0.5	76	0.6	70	0.6	72	0.5	74	0.5	78	0.4	77	0.4	77
21	0.3	78	0.3	75	0.4	76	0.4	75	0.5	73	0.5	72	0.4	74	0.4	74	0.4	75	0.4	80	0.3	81	0.3	82
22	0.2	83	0.2	83	0.3	82	0.3	79	0.4	77	0.5	78	0.4	79	0.4	79	0.4	79	0.4	82	0.4	83	0.3	84
23	0.3	84	0.3	84	0.3	82	0.4	81	0.4	80	0.4	78	0.4	77	0.4	76	0.4	71	0.4	80	0.4	85	0.4	85
24	0.5	86	0.5	87	0.6	88	0.7	85	0.8	86	0.9	82	1.2	80	1.2	81	1.1	86	1.1	84	1.0	87	1.0	87
25	0.9	89	0.9	88	0.7	91	0.7	89	0.8	81	0.9	79	1.1	70	1.1	66	1.2	70	0.9	80	0.8	87	1.0	86
26	0.9	87	0.9	87	0.8	90	0.9	84	1.1	84	1.2	84	1.3	70	1.2	73	1.3	82	1.4	86	1.7	79	1.7	84
27	1.4	85	1.2	82	1.1	85	1.2	84	1.2	88	1.5	80	1.8	86	1.9	87	2.0	89	2.0	85	1.5	91	1.4	91
28	1.5	95	1.6	90	1.6	89	1.3	75	1.3	87	1.4	81	1.4	85	1.5	87	1.3	81	1.3	90	1.2	91	1.2	91
29	1.6	95	1.5	91	1.5	92	1.7	87	1.9	90	2.0	93	2.7	89	2.6	79	2.2	70	2.1	67	2.1	96	1.6	87
30	1.2	96	1.2	93	1.9	88	1.9	90	1.9	88	2.0	89	2.0	86	2.0	87	1.8	92	1.6	93	1.6	89	1.7	95
Mean	0.44	79.0	0.44	79.2	0.48	78.4	0.51	76.2	0.55	76.0	0.60	74.4	0.65	73.8	0.65	73.2	0.60	74.1	0.58	76.6	0.54	78.7	0.53	78.8

1902. May.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	1.5	94	1.5	79	1.4	64	1.4	62	1.3	60	1.5	67	1.7	76	1.7	78	1.6	81	1.6	85	1.2	60	0.9	64
2	0.9	63	0.9	64	1.2	75	1.2	70	1.1	71	1.3	68	1.4	66	1.4	76	1.2	83	1.3	90	1.3	95	1.3	92
3	1.3	87	1.1	95	1.1	95	1.3	86	1.2	85	1.3	89	1.3	91	1.2	93	1.2	88	0.9	95	0.8	95	0.8	93
4	0.8	91	0.8	81	0.8	91	0.9	90	1.2	97	1.2	95	1.2	92	1.1	95	1.1	93	1.1	97	1.0	97	1.0	98
5	0.9	98	1.0	96	0.9	89	0.8	91	0.9	89	1.0	83	1.0	84	1.0	81	1.2	90	1.1	91	0.8	94	0.8	92
6	0.7	93	0.7	94	0.8	91	1.1	88	1.1	87	1.2	89	1.2	81	1.1	81	0.8	84	0.7	81	0.7	84	0.6	84
7	0.6	87	0.6	86	0.6	83	0.8	78	0.8	74	0.8	76	1.0	71	1.1	68	1.2	91	1.0	93	0.9	86	1.0	77
8	0.8	77	0.7	79	0.7	75	0.7	75	0.7	85	1.0	90	0.9	80	0.9	82	1.0	83	1.2	88	1.2	86	1.2	86
9	1.2	88	1.1	90	1.1	91	1.2	80	1.2	84	1.5	89	1.2	68	1.2	68	1.2	70	1.2	71	1.2	71	1.1	71
10	1.1	72	1.2	76	1.0	70	1.1	65	1.1	70	1.3	77	1.2	69	1.2	70	1.1	72	1.2	76	1.1	85	1.0	86
11	1.2	86	1.2	85	1.1	86	1.1	87	1.1	82	1.2	81	1.2	81	1.3	81	1.4	85	1.3	79	1.5	85	1.6	87
12	1.6	95	1.5	94	1.6	92	1.7	93	1.9	79	2.2	92	2.3	92	2.4	94	2.4	95	2.4	97	2.5	98	2.3	97
13	2.3	97	1.8	94	1.5	74	1.5	76	1.5	84	1.6	86	1.6	86	1.3	89	1.3	81	1.1	80	1.1	77	0.9	81
14	0.9	83	0.9	81	1.0	80	1.0	81	1.2	86	1.1	85	1.2	73	1.1	64	1.3	80	1.3	81	1.2	79	1.2	80
15	0.9	82	0.9	95	1.0	85	1.0	81	1.2	81	1.1	85	1.1	77	1.1	77	1.1	79	1.0	80	1.0	88	1.1	90
16	1.0	87	1.1	91	1.2	87	1.2	89	1.2	90	1.1	85	1.1	85	1.1	85	1.0	84	1.0	85	0.9	83	0.8	85
17	0.8	85	0.9	81	0.9	82	1.0	80	1.0	78	1.1	66	1.1	65	1.2	61	1.1	69	1.2	76	1.1	76	1.0	85
18	0.9	58	0.9	56	1.0	67	1.1	68	1.2	65	1.1	55	1.6	87	1.7	89	1.6	92	1.6	93	1.6	90	1.6	85
19	1.4	85	1.2	81	1.1	77	1.1	78	1.1	81	1.3	86	1.4	86	1.3	83	1.5	90	1.3	80	1.2	79	1.2	89
20	1.2	86	1.2	85	1.1	81	1.2	85	1.2	85	1.2	83	1.4	86	1.4	90	1.5	86	1.4	84	1.3	90	1.2	90
21	1.1	82	1.2	86	1.3	86	1.4	84	1.3	82	1.4	82	1.6	74	1.5	67	1.5	71	1.4	72	1.3	70	1.3	69
22	1.1	73	1.2	71	1.2	70	1.6	67	1.4	64	1.6	70	1.8	73	1.8	74	1.8	65	1.9	67	1.5	56	1.5	67
23	1.5	69	1.5	69	1.8	83	2.0	82	2.0	85	2.1	81	2.2	85	2.0	72	2.3	88	2.2	91	2.0	91	2.0	87
24	1.6	89	1.4	92	1.5	88	1.7	80	1.8	78	2.0	78	2.1	80	2.1	80	2.1	75	2.1	80	1.9	85	1.9	88
25	1.6	90	1.7	84	1.7	80	1.9	84	1.9	82	2.0	90	2.0	85	2.0	80	2.0	87	2.0	89	1.8	94	1.8	97
26	1.7	95	1.8	81	1.8	90	1.8	78	1.9	80	2.0	80	2.1	82	2.1	79	2.0	80	2.0	90	2.0	83	1.7	95
27	1.6	92	1.5	95	1.5	91	2.0	76	1.8	76	2.2	66	2.2	70	2.3	68	2.1	82	2.2	78	2.0	87	2.2	88
28	2.2	85	2.2	81	2.2	78	2.4	80	2.7	88	2.9	89	3.0	87	2.9	85	3.1	90	3.0	89	3.0	90	3.0	90
29	2.8	93	2.5	86	2.7	78	2.6	83	3.0	89	3.2	73	3.0	73	3.0	72	3.2	74	3.0	88	2.6	88	2.6	83
30	2.7	93	3.0	95	3.2	91	3.2	93	3.2	90	3.4	87	3.7	89	3.7	92	3.6	90	3.3	86	3.1	81	2.9	80
31	2.8	80	2.8	80	3.0	86	3.2	84	3.2	86	4.1	90	3.7	87	3.9	92	3.9	86	3.2	74	3.5	80	3.4	88
Mean	1.38	85.2	1.35	84.1	1.39	82.6	1.49	80.5	1.53	81.2	1.68	81.2	1.73	80.2	1.71	79.7	1.72	82.8	1.65	84.1	1.56	84.2	1.51	85.4

1902. June.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	3.1	89	3.5	94	3.8	91	4.1	89	3.6	77	3.7	73	3.8	81	3.7	77	4.0	77	4.0	91	3.8	85	3.5	80
2	3.1	74	3.0	84	3.3	84	3.6	78	3.6	74	3.7	70	3.9	63	4.0	68	4.2	82	3.9	83	3.9	84	3.9	89
3	3.8	89	3.8	89	3.7	90	4.0	89	4.0	87	4.0	79	3.6	69	3.4	53	3.7	65	3.5	70	3.6	74	3.7	77
4	3.7	88	3.4	85	3.6	82	3.7	82	3.7	78	3.7	76	3.9	80	4.0	82	4.2	84	4.2	83	4.1	84	3.4	89
5	3.4	89	3.4	88	3.2	76	3.2	74	3.6	78	3.7	80	4.1	82	4.5	71	3.6	71	3.7	72	3.5	70	3.1	65
6	3.4	71	3.1	65	3.5	76	3.3	60	3.8	64	4.2	76	*4.0*	*74*	*3.9*	*72*	*3.8*	*71*	*3.7*	*69*	3.5	67	3.4	63
7	3.3	66	3.8	70	4.0	68	4.0	63	4.5	78	4.2	72	4.7	80	4.6	73	4.6	74	4.8	80	4.9	78	4.6	85
8	4.0	88	4.0	86	4.1	85	4.2	86	4.4	86	4.5	73	4.4	74	3.9	76	4.6	89	4.6	87	4.5	90	4.3	87
9	3.9	81	3.8	74	3.5	64	3.8	70	3.7	66	4.5	78	4.5	82	4.3	79	4.6	89	4.5	89	4.5	90	4.5	89
10	4.7	88	4.6	89	4.7	89	4.6	84	4.6	88	4.7	88	4.7	90	4.8	90	4.9	90	4.7	91	4.7	91	4.9	89
11	5.0	87	5.1	85	5.1	85	5.0	73	4.9	72	4.9	69	5.3	79	4.5	70	4.8	74	4.8	73	4.8	76	4.2	61
12	4.3	66	4.5	63	4.3	62	4.3	64	4.4	62	4.7	57	5.0	68	5.1	63	4.9	68	4.7	78	4.3	75	4.0	70
13	4.5	79	4.6	82	4.8	93	5.4	98	5.0	91	4.9	69	4.8	80	4.7	77	4.8	86	4.8	85	4.5	85	4.6	91
14	4.3	92	4.3	89	4.4	90	4.5	90	4.5	85	4.5	80	4.6	80	4.7	85	4.7	85	4.9	89	4.4	89	4.5	84
15	4.3	82	4.5	89	4.4	92	4.2	89	4.1	85	4.3	89	4.5	85	4.3	79	4.5	80	4.5	84	4.6	78	4.6	82
16	4.5	84	4.5	92	4.5	90	5.1	93	6.0	96	4.4	87	4.4	89	4.1	67	4.5	91	4.5	89	4.5	91	4.4	85
17	4.3	85	4.2	89	4.3	90	4.3	87	4.3	87	4.3	85	4.1	82	4.1	80	4.1	85	4.3	90	4.1	87	4.1	89
18	4.1	89	4.1	89	*4.1*	*78*	4.2	75	4.1	80	4.1	77	3.9	73	4.0	75	4.3	84	4.2	82	3.9	65	4.1	80
19	4.0	66	4.3	65	4.0	66	3.9	63	4.4	82	4.4	79	4.3	76	4.5	80	4.1	73	4.2	73	4.3	74	4.1	69
20	4.0	70	3.9	62	4.3	73	4.0	66	3.9	64	3.6	53	4.0	74	3.7	61	3.7	56	3.8	62	3.9	74	3.6	65
21	3.6	66	3.7	66	3.8	64	4.0	72	3.5	49	3.6	45	3.2	40	3.3	44	3.2	42	3.6	50	4.4	65	4.8	73
22	4.9	75	4.6	71	4.5	71	4.7	72	4.7	76	4.7	76	4.8	77	5.1	79	5.1	78	5.0	74	5.0	75	4.8	77
23	4.8	77	4.7	78	4.6	71	4.9	70	4.5	66	4.2	75	4.4	77	4.6	84	4.7	85	4.7	78	4.6	80	4.6	90
24	4.7	84	4.5	85	4.4	84	4.6	88	4.5	77	4.6	82	4.7	85	4.6	88	4.7	91	4.6	82	4.7	84	4.4	84
25	4.3	77	4.3	77	4.4	79	4.1	73	4.0	65	4.1	66	4.2	72	4.2	65	4.0	60	3.7	57	4.4	77	4.4	73
26	4.4	75	4.5	77	4.8	77	4.7	77	4.8	71	4.5	70	4.7	69	4.8	71	5.4	86	5.0	83	5.0	89	5.0	88
27	5.2	88	5.1	90	5.1	91	5.1	90	5.0	91	4.9	91	4.9	82	5.1	93	5.3	88	5.1	93	5.3	94	5.5	79
28	5.4	84	5.4	86	5.6	90	5.4	86	5.6	90	5.6	89	5.5	90	5.6	86	5.6	83	5.4	88	5.3	92	5.5	86
29	5.5	87	5.5	87	5.7	87	5.8	71	5.2	90	5.2	84	5.4	66	5.3	69	5.6	78	5.6	73	5.3	78	5.4	79
30	5.1	87	5.2	84	5.3	90	5.6	79	5.6	77	5.5	82	5.5	76	5.6	72	5.5	57	6.0	61	4.8	55	5.4	59
Mean	4.25	80.8	4.26	81.0	4.33	80.9	4.41	78.4	4.42	77.7	4.40	75.7	4.46	76.5	4.44	74.3	4.52	77.4	4.50	78.6	4.44	79.9	4.38	79.2

1902. July.

Gaasefjord. $\varphi = 76^\circ 40' $ N. $\lambda = 88^\circ 38'$ W.

Day	2h		4h		6h		8h		10h		Noon		2h		4h		6h		8h		10h		Midt.	
	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.	mm.	p. c.
1	5.5	65	5.5	56	5.3	63	5.7	71	5.2	48	5.7	68	5.8	69	6.0	73	6.0	66	6.1	71	6.1	70	5.5	82
2	5.5	74	5.1	79	5.3	76	5.3	73	4.9	83	4.8	85	4.4	76	4.0	69	4.2	74	4.2	72	3.8	68	3.8	49
3	4.1	56	3.9	51	3.9	56	3.9	57	4.1	61	4.0	58	4.2	59	4.2	59	3.9	54	4.1	57	4.0	61	3.8	56
4	4.1	56	4.3	65	4.4	67	4.5	68	4.0	54	4.3	60	4.4	60	4.4	57	4.4	62	4.4	45	4.7	63	4.4	56
5	4.5	80	4.3	77	4.0	65	4.0	61	4.0	64	4.1	70	3.7	59	3.7	62	3.8	66	3.8	68	4.0	72	3.9	69
6	3.6	63	4.1	62	4.3	68	4.8	74	6.3	87	6.0	86	4.8	71	4.7	73	4.8	71	4.9	75	3.0	31	3.0	33
7	2.6	29	4.6	65	4.7	62	3.9	44	3.5	38	3.8	58	4.3	75	4.6	82	4.6	84	4.6	80	4.4	89	4.5	90
8	4.3	89	4.4	89	4.3	85	4.3	84	4.2	82	4.3	74	4.4	78	4.2	63	4.5	61	3.6	38	4.1	43	3.9	52
9	4.2	55	4.7	70	4.7	63	4.5	57	5.0	62	3.7	33	3.6	32	4.3	68	4.4	63	4.6	71	4.8	83	5.0	80
10	5.1	85	5.1	84	5.2	88	5.2	85	5.1	85	5.0	88	5.0	85	4.9	85	4.8	87	4.9	91	5.0	93	4.9	86
11	4.7	83	4.9	89	5.0	85	5.1	87	5.0	89	5.3	84	5.1	87	5.1	90	5.5	73	5.2	87	5.5	81	5.2	85
12	4.7	71	5.3	78	5.3	76	5.3	60	6.0	69	5.8	74	5.5	66	5.0	57	4.8	50	5.3	58	5.3	54	5.2	54
13	5.2	74	5.2	76	5.5	67	5.6	67	5.3	68	4.7	57	5.5	67	5.3	67	5.1	74	5.4	66	5.2	68	5.2	81
14	5.1	84	4.9	78	4.9	78	4.8	77	5.1	78	5.2	71	5.3	67	5.2	82	5.2	81	5.3	87	5.3	87	4.9	79
15	4.5	73	4.7	91	4.7	84	4.8	85	4.9	83	4.9	80	4.9	75	4.9	80	5.1	87	5.0	74	4.9	78	5.0	77
16	4.9	80	4.7	78	4.8	76	5.2	80	5.0	80	5.1	84	5.0	77	5.1	74	5.0	80	5.2	79	5.0	80	5.3	71
17	5.4	73	5.3	71	5.3	76	6.4	85	5.6	65	5.9	64	5.7	83	5.4	62	5.4	70	5.5	70	4.6	56	5.8	71
18	5.7	78	5.5	62	5.7	77	5.8	69	5.2	67	5.4	67	4.8	77	5.1	81	5.1	85	4.9	96	4.9	96	4.7	94
19	4.7	93	4.5	92	4.7	81	5.0	73	5.1	69	5.4	57	5.6	62	5.7	64	5.8	64	5.7	72	5.1	87	*5.0*	*84*
20	*4.9*	*81*	4.8	78	4.1	63	4.5	67	4.6	67	4.7	77	4.7	69	4.6	59	4.6	59	4.7	77	4.6	74	4.5	68
21	4.5	68	4.6	71	4.8	69	4.8	69	4.6	62														
Mean*	4.71	72.4	4.75	74.5	4.78	72.8	4.88	71.2	4.88	70.0	4.90	69.8	4.83	69.7	4.82	70.8	4.85	70.6	4.87	71.7	4.71	71.7	4.67	70.0

* 1st to 20th.

FORCE OF VAPOUR. DAILY PERIOD.

Putting together the numbers for the force of vapour in the last row of the foregoing Tables, we obtain the following Tables, showing the means of the force of vapour for every alternate hour in the several years. To the right, are the daily means of these, headed *Mean*, and the number of days of observation, headed *Days*.

January.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.22	0.23	0.24	0.24	0.23	0.24	0.24	0.25	0.24	0.24	0.24	0.23	0.24	31
1900	0.26	0.27	0.26	0.28	0.27	0.28	0.28	0.28	0.28	0.27	0.26	0.26	0.27	31
1901	0.20	0.16	0.17	0.16	0.15	0.15	0.17	0.15	0.15	0.15	0.16	0.15	0.17	31
1902	0.16	0.17	0.17	0.17	0.16	0.17	0.18	0.16	0.16	0.16	0.17	0.16	0.16	31
Mean	0.21	0.21	0.21	0.21	0.20	0.21	0.22	0.21	0.21	0.21	0.21	0.20	0.21	

February.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.28	0.28	0.27	0.28	0.29	0.27	0.28	0.28	0.26	0.26	0.26	0.26	0.27	28
1900	0.93	0.96	0.93	0.92	1.03	0.97	1.01	1.02	0.95	0.99	1.00	0.94	0.97	24
1901	0.32	0.31	0.28	0.24	0.30	0.30	0.29	0.28	0.27	0.29	0.31	0.32	0.29	28
1902	0.36	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.36	0.36	28
Mean	0.47	0.47	0.46	0.45	0.49	0.48	0.48	0.49	0.46	0.47	0.48	0.47	0.47	

March.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.34	0.35	0.33	0.32	0.35	0.36	0.37	0.35	0.36	0.35	0.34	0.34	0.35	31
1900	0.42	0.40	0.39	0.39	0.40	0.43	0.44	0.43	0.40	0.40	0.39	0.40	0.41	31
1901	0.26	0.25	0.24	0.26	0.26	0.29	0.29	0.28	0.28	0.27	0.28	0.28	0.27	31
1902	0.21	0.22	0.23	0.22	0.22	0.23	0.25	0.23	0.22	0.22	0.22	0.22	0.22	31
Mean	0.31	0.30	0.30	0.30	0.31	0.33	0.34	0.32	0.31	0.31	0.31	0.31	0.31	

April.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.68	0.68	0.71	0.72	0.74	0.77	0.74	0.73	0.77	0.74	0.73	0.67	0.72	30
1900	0.67	0.64	0.66	0.70	0.78	0.83	0.86	0.89	0.86	0.80	0.79	0.73	0.77	30
1901	0.52	0.51	0.52	0.53	0.56	0.60	0.63	0.61	0.59	0.60	0.57	0.56	0.57	30
1902	0.44	0.44	0.48	0.51	0.55	0.60	0.65	0.65	0.60	0.58	0.54	0.53	0.55	30
Mean	0.58	0.57	0.59	0.62	0.66	0.70	0.72	0.72	0.71	0.68	0.66	0.62	0.65	

May.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	1.71	1.69	1.78	1.85	1.88	2.01	2.05	2.03	1.97	1.93	1.85	1.75	1.88	31
1900	1.71	1.70	1.74	1.81	1.84	1.96	2.00	2.10	2.05	1.96	1.83	1.81	1.88	31
1901	1.61	1.60	1.62	1.68	1.68	1.68	1.77	1.82	1.80	1.81	1.77	1.73	1.71	31
1902	1.38	1.35	1.39	1.49	1.53	1.68	1.73	1.71	1.72	1.65	1.56	1.51	1.56	31
Mean	1.60	1.59	1.63	1.71	1.73	1.83	1.89	1.92	1.89	1.84	1.75	1.70	1.76	

June.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1899	3.70	3.84	3.72	3.70	3.68	3.81	3.92	3.84	3.84	3.89	3.89	3.86	3.81	30
1900	3.87	3.87	3.93	4.06	4.18	4.17	4.08	4.04	4.10	4.08	3.99	4.02	4.03	30
1901	3.50	3.43	3.49	3.50	3.58	3.68	3.71	3.74	3.65	3.63	3.66	3.62	3.60	30
1902	4.25	4.26	4.33	4.41	4.42	4.40	4.46	4.44	4.52	4.50	4.43	4.38	4.40	30
Mean	3.83	3.85	3.87	3.92	3.96	4.01	4.04	4.01	4.03	4.02	3.99	3.97	3.96	

July.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1899	4.55	4.58	4.70	4.74	4.71	4.79	4.83	4.94	4.71	4.65	4.55	4.56	4.68	23
1900	4.68	4.70	4.77	4.73	4.85	4.90	4.82	4.83	4.83	4.86	4.83	4.43	4.77	31
1901	4.81	4.85	4.83	4.89	4.83	4.91	4.99	5.00	5.02	4.93	5.03	4.98	4.92	31
1902	4.71	4.75	4.78	4.88	4.88	4.90	4.83	4.82	4.85	4.87	4.71	4.67	4.81	20
Mean	4.70	4.72	4.77	4.77	4.82	4.87	4.87	4.90	4.86	4.84	4.81	4.67	4.80	

August.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1900	4.62	4.91	4.95	4.44	4.36	4.30	4.44	4.30	4.77	4.76	4.66	4.83	4.61	8
1901	4.36	4.31	4.26	4.36	4.23	4.38	4.46	4.44	4.44	4.30	4.29	4.27	4.34	31
Mean	4.33	4.33	4.41	4.37	4.26	4.36	4.45	4.41	4.51	4.40	4.37	4.39	4.38	

September.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1898	1.43	1.42	1.43	1.43	1.46	1.47	1.47	1.50	1.47	1.46	1.41	1.42	1.45	12
1900	2.15	2.18	2.04	1.98	1.96	2.01	2.07	2.03	2.07	2.02	2.02	2.03	2.07	19
1901	2.10	2.15	2.10	2.12	2.14	2.21	2.23	2.19	2.19	2.17	2.12	2.10	2.15	30
Mean	1.98	2.01	1.95	1.94	1.95	2.00	2.08	2.05	2.06	2.03	2.00	1.99	2.00	

October.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1898	1.24	1.24	1.24	1.24	1.27	1.30	1.30	1.29	1.27	1.26	1.21	1.22	1.26	31
1899	0.84	0.84	0.81	0.81	0.83	0.76	0.78	0.75	0.72	0.71	0.69	0.72	0.77	8
1900	0.98	0.99	0.99	0.98	0.99	0.96	0.96	0.95	0.97	0.97	0.98	0.96	0.97	29
1901	0.82	0.83	0.82	0.80	0.86	0.83	0.86	0.84	0.86	0.82	0.81	0.82	0.83	31
Mean	1.00	1.00	1.00	0.99	1.01	1.01	1.04	1.00	0.99	0.99	0.98	0.99	1.00	

November.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1898	0.38	0.37	0.38	0.41	0.39	0.36	0.36	0.38	0.37	0.37	0.39	0.37	0.38	30
1899	0.46	0.46	0.46	0.47	0.46	0.46	0.46	0.45	0.45	0.43	0.44	0.44	0.45	30
1900	0.52	0.49	0.49	0.52	0.51	0.51	0.49	0.52	0.53	0.54	0.53	0.52	0.51	30
1901	0.60	0.60	0.60	0.58	0.59	0.57	0.56	0.58	0.57	0.57	0.57	0.58	0.58	30
Mean	0.49	0.48	0.48	0.50	0.49	0.48	0.47	0.48	0.48	0.48	0.48	0.48	0.48	

December.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1898	0.27	0.26	0.27	0.26	0.28	0.27	0.27	0.27	0.27	0.27	0.28	0.27	0.27	31
1899	0.47	0.49	0.47	0.48	0.49	0.45	0.50	0.47	0.47	0.45	0.47	0.46	0.47	31
1900	0.27	0.31	0.29	0.28	0.30	0.31	0.27	0.28	0.27	0.29	0.30	0.30	0.29	31
1901	0.36	0.36	0.36	0.36	0.34	0.37	0.38	0.37	0.38	0.39	0.38	0.38	0.37	31
Mean	0.34	0.35	0.35	0.34	0.35	0.35	0.36	0.35	0.35	0.35	0.36	0.35	0.35	

The last row for each month gives the means for each hour and for the years of observation. For the months January to June, and November and December, these means are the totals divided by 4. But for the months July, August, September and October, the means are weighted means, being computed with the number of days in the last columns as weights.

The series of means for the different hours show that there is hardly any daily period in the months October to February; but the other months, during which the sun is shining, show a well-defined daily period. The minima and maxima are as follows:

Month	Minimum		Maximum		Range
	hour	am. mm.	hour	am. mm.	mm.
March	6 a. m.	0.30	2 p. m.	0.34	0.04
April	3 a. m.	0.57	3 p. m.	0.72	0.15
May	3 a. m.	1.59	4 p. m.	1.92	0.33
June	2 a. m.	3.83	2 p. m.	4.04	0.21
July	Midt.	4.67	4 p. m.	4.90	0.23
August	3 a. m.	4.33	6 p. m.	4.51	0.25
	10 a. m.	4.26	6 a. m.	4.41	
September	8 a. m.	1.94	2 p. m.	2.08	0.14

June has a secondary minimum at 4 p. m.

The range is greatest in May, and diminishes towards the dark, cold months, when it vanishes.

FORCE OF VAPOUR. ANNUAL PERIOD.

The following Table contains the monthly means of the force of vapour. For those months for which there are complete observations, the numbers are the same as those in the Table on pp. 168—169. For the other months — except August 1899 — the observations taken on board the Fram, while she was under way not far from the winter stations, have been taken to complete the observations for the respective months. The means thus found are inclosed in brackets.

Year	January	February	March	April	May	June
	mm.	mm.	mm.	mm.	mm.	mm.
1899	0.24	0.27	0.35	0.72	1.88	3.81
1900	0.27	0.97	0.41	0.77	1.88	4.03
1901	0.17	0.29	0.27	0.57	1.71	3.60
1902	0.16	0.36	0.22	0.55	1.56	4.40
Mean	0.21	0.47	0.31	0.65	1.76	3.96
Sm.	0.31	0.36	0.43			

Year	July	August	September	October	November	December
	mm.	mm.	mm.	mm.	mm.	mm.
1898			[1.77]	1.26	0.38	0.27
1899	[4.72]	[4.62]	[2.88]		0.45	0.47
1900	4.77	[4.12]	[2.07]	[0.97]	0.51	0.29
1901	4.92	4.34	2.15	0.83	0.58	0.37
1902	[4.84]					
Mean	4.81	4.36	2.22	1.02	0.48	0.35

The mean for the year is 1.72 mm.

The monthly means show a fairly even progression, with the exception of February, which is rather high. The year 1900, in particular, gives a remarkably high number. This month also exhibits, as we have seen, p. 116, a particularly high temperature.

Smoothing the numbers for January, February and March, we obtain the numbers headed '*Sm*'.

The smoothed numbers give, by a parabolic formula,

Minimum	January	14th	0.31 mm.
Maximum	July	20th	4.81 mm.
Range			4.50 mm.

RELATIVE HUMIDITY. DAILY PERIOD.

The numbers expressing the relative humidity in the Tables, pp. 123—167, have been treated in the same manner as those for the force of vapour. The following Tables show the means of the relative humidity for every alternate hour in the several years, the monthly means, and the number of days of observation.

January.

Year	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.	Mean	Days
1899	83.1	82.6	83.8	82.3	82.4	82.0	82.5	83.7	83.3	82.9	83.1	83.4	82.9	31
1900	83.3	81.7	82.0	81.7	81.1	81.8	81.8	81.6	81.4	81.2	81.1	81.0	81.5	31
1901	82.6	82.3	82.3	82.6	83.1	83.7	83.4	83.7	83.6	82.8	82.7	82.8	82.0	31
1902	85.1	85.4	85.6	85.7	85.8	85.7	85.5	85.8	86.2	86.1	85.6	85.3	85.6	31
Mean	83.0	83.0	83.4	83.1	83.1	83.3	83.3	83.7	83.6	83.3	83.1	83.1	83.2	

February.

1899	86.8	86.5	85.9	86.6	86.6	87.1	86.9	86.0	86.7	86.6	86.7	87.0	86.6	28
1900	82.2	81.1	79.7	79.4	80.2	80.4	79.6	79.1	81.3	81.5	81.3	80.0	80.5	24
1901	87.8	87.7	87.4	87.7	87.7	86.2	86.1	86.2	86.5	87.5	87.0	87.2	87.1	28
1902	83.7	84.0	84.2	83.8	82.6	82.4	82.5	83.5	83.9	83.6	84.2	83.4	83.5	28
Mean	85.1	84.8	84.3	84.4	84.3	84.0	83.8	83.7	84.6	84.8	84.8	84.4	84.4	

March.

1899	89.0	89.8	89.0	88.2	88.1	85.6	85.4	86.6	86.1	86.0	86.5	87.4	87.3	31
1900	74.0	74.0	74.2	73.7	73.6	71.8	71.7	72.7	73.5	74.7	74.3	73.6	73.5	31
1901	86.2	86.9	87.0	87.0	86.9	86.7	86.0	86.3	86.3	87.1	86.9	86.1	86.6	31
1902	73.1	73.1	73.4	73.4	73.6	73.2	72.7	72.6	73.0	73.2	73.3	73.3	73.2	31
Mean	80.6	81.0	80.9	80.6	80.6	79.3	79.0	79.6	79.7	80.3	80.3	80.1	80.2	

April.

1899	83.2	81.3	81.1	78.9	77.1	76.9	77.8	76.9	77.5	79.2	79.8	82.3	79.3	30
1900	83.1	82.7	82.2	81.6	78.8	76.6	76.3	76.8	77.5	81.3	84.1	84.1	80.4	30
1901	88.8	88.7	88.3	87.4	86.2	86.4	86.2	86.8	87.8	87.6	88.4	88.3	87.6	30
1902	79.0	79.2	78.4	76.2	76.0	74.4	73.8	73.2	74.1	76.6	78.7	78.8	76.5	30
Mean	83.5	83.0	82.5	81.0	79.5	78.6	78.5	78.4	79.2	81.2	82.8	83.4	81.0	

May.

1899	75.6	73.8	72.9	74.5	73.2	71.9	71.5	72.5	71.5	73.1	74.7	75.3	73.4	31
1900	80.4	80.0	77.6	73.7	71.6	69.6	70.0	71.0	72.0	73.0	76.0	78.4	74.4	31
1901	87.2	87.3	85.4	86.0	83.7	81.6	83.6	84.0	84.9	85.9	85.9	86.5	85.2	31
1902	85.2	84.1	82.6	80.5	81.2	81.2	80.2	79.7	82.8	84.1	84.2	85.4	82.6	31
Mean	82.1	81.3	79.6	78.7	77.4	76.1	76.3	76.8	77.8	79.0	80.2	81.4	78.9	

June.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	77.4	75.7	74.6	74.0	70.8	70.5	71.7	72.2	72.6	73.6	75.9	79.1	74.0	30
1900	82.7	83.3	80.5	79.3	79.8	77.0	80.0	73.2	76.0	77.7	78.6	82.2	79.2	30
1901	87.9	87.6	87.4	85.9	84.6	84.0	84.5	83.9	83.6	84.1	85.2	87.5	85.5	30
1902	80.8	81.0	80.9	78.4	77.7	75.7	76.5	74.3	77.4	78.6	79.9	79.2	78.3	30
Mean	82.2	81.9	80.8	79.4	78.2	76.8	78.2	75.9	77.4	78.5	79.9	82.0	79.3	

July.

1899	84.9	84.1	85.9	84.3	84.5	82.9	80.7	81.6	80.0	82.5	82.1	84.0	83.1	23
1900	87.5	88.9	86.5	85.1	84.3	82.6	78.9	77.7	80.3	82.4	84.9	86.5	82.3	31
1901	89.7	89.3	89.1	88.9	87.1	83.6	84.0	84.2	84.8	85.6	87.6	90.0	86.7	31
1902	72.4	74.5	72.8	71.2	70.0	69.8	69.7	70.8	70.6	71.7	71.7	70.9	71.8	20
Mean	84.8	84.4	84.6	83.4	82.4	80.5	79.1	79.1	79.7	81.3	82.6	84.1	82.2	

August.

1900	82.8	83.4	84.6	81.9	77.1	72.1	70.5	66.4	74.1	76.8	79.1	83.3	77.7	8
1901	91.1	91.3	90.2	91.2	89.4	88.6	87.8	86.7	88.0	88.9	90.2	90.1	89.5	31
W. M.	89.3	89.4	89.1	89.3	86.9	85.2	84.3	82.6	85.2	86.4	88.0	88.7	87.0	

September.

1898	73.0	72.5	72.2	71.1	70.6	70.1	68.9	70.7	70.0	71.5	69.8	72.6	71.1	12
1900	88.3	87.2	84.6	83.0	82.7	83.1	84.9	85.2	87.9	86.9	86.0	86.4	85.5	19
1901	90.3	91.9	90.7	89.6	88.6	88.2	87.5	87.7	90.7	91.9	91.4	91.9	90.0	30
Mean	86.3	86.7	85.2	84.0	83.3	83.0	83.0	83.6	85.8	86.4	85.7	86.3	84.9	

October.

1898	80.3	80.0	80.0	78.9	80.1	79.8	79.5	78.1	78.8	78.8	80.4	81.0	79.6	31
1899	78.4	78.9	79.2	79.8	79.7	79.9	80.1	80.0	81.4	81.2	81.6	80.9	80.9	8
1900	82.6	81.8	82.8	82.9	82.7	82.6	81.9	82.4	83.0	84.2	84.3	83.3	82.9	29
1901	84.0	83.0	84.0	83.7	84.0	83.2	83.6	83.3	83.8	84.0	84.0	83.7	83.7	31
Mean	82.3	81.7	81.5	80.6	81.2	80.0	80.5	80.2	82.5	82.3	82.8	83.0	81.5	

November.

1898	81.0	81.2	81.9	81.3	81.5	81.1	80.7	81.2	80.7	80.3	80.8	80.4	81.0	30
1899	76.4	75.5	75.4	75.7	77.7	75.8	74.6	73.9	73.7	74.3	74.7	75.3	75.3	30
1900	85.6	85.7	86.0	85.8	85.5	86.0	85.0	85.5	85.4	85.9	85.1	85.2	85.6	30
1901	83.9	83.1	83.4	82.7	82.7	81.7	82.1	82.9	82.3	82.8	83.9	83.9	82.9	30
Mean	81.7	81.4	81.7	81.4	81.9	81.2	80.6	80.9	80.5	80.8	81.1	81.2	81.2	

December.

1898	84.3	85.1	84.7	84.4	84.6	84.2	83.7	84.0	85.5	84.1	83.7	83.8	84.3	31
1899	80.3	80.3	79.4	79.2	79.1	78.5	78.6	77.9	78.9	79.5	79.6	80.7	79.3	31
1900	83.0	82.6	81.9	82.5	83.0	83.5	82.5	82.8	82.5	82.4	82.6	83.1	82.7	31
1901	88.6	89.1	89.1	89.2	89.4	89.4	88.3	87.9	87.8	88.4	88.4	89.0	88.7	31
Mean	84.1	84.3	83.8	83.8	84.0	83.4	83.3	83.2	83.8	83.6	83.6	84.2	83.8	

The last row for each month gives the means for each hour and for the years of observation. For the months January to June, and November and December, these means are the totals divided by 4; but for the months July, August, September and October, the means are weighted means, being computed with the numbers of days in the last column as weights.

The means in the last row for each month show, for almost every month, a well defined daily period in the relative humidity, with a minimum some hours after noon and a maximum in the morning hours or the night. By plotting the numbers and smoothing them, we get the following Table showing the diurnal maxima and minima.

Month	Maximum		Minimum		Range
	hour	p. c.	hour	p. c.	p. c.
January	4 p. m.	83.7	3 a. m.	83.0	0.7
February	2 a. m.	85.1	3 p. m.	83.7	1.4
March	4 a. m.	81.0	2 p. m.	79.0	2.0
April	1 a. m.	83.5	4 p. m.	78.4	5.1
May	2 a. m.	82.1	1 p. m.	76.2	5.9
June	3 a. m.	81.3	2 p. m.	76.0	5.3
July	4 a. m.	84.6	3 p. m.	78.9	5.7
August	4 a. m.	89.4	4 p. m.	82.6	6.8
September	2 a. m.	86.5	1 p. m.	83.0	3.5
October	Midt.	83.7	Noon	80.5	3.2
November	8 a. m.	81.6	5 p. m.	80.7	0.9
December	2 a. m.	84.2	4 p. m.	83.2	1.0

January alone shows no appreciable period.

The range is greatest in August, and smallest in the dark months.

RELATIVE HUMIDITY. ANNUAL PERIOD.

The following Table has been made up in the same manner as the corresponding Table for the force of vapour (p. 171).

Year	January	February	March	April	May	June
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
1899	82.9	86.6	87.3	79.3	73.4	74.0
1900	81.5	80.5	73.5	80.4	74.4	79.2
1901	82.0	87.1	86.6	87.6	85.2	85.5
1902	85.6	83.5	73.2	76.5	82.6	78.3
Mean	83.3	84.4	80.2	81.0	78.9	79.3
Smoothed	83.7	83.1	81.5	80.3	79.5	79.8

Year	July	August	September	October	November	December
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
1898			[71.7]	79.6	81.0	84.3
1899	[82.5]	[86.3]	[77.0]		75.3	79.3
1900	82.3	[86.7]	[85.5]	[82.9]	85.6	82.7
1901	86.7	89.5	90.0	83.7	82.9	88.7
1902	[74.5]					
Mean	81.5	87.5	81.1	82.1	81.2	83.8
Smoothed	82.4	84.4	82.9	81.6	81.8	83.0

The mean for the year is 82.0 p. c.

The march of the monthly means is not very regular.

Smoothing the number by the formula $\frac{1}{4}(a + 2b + c)$, we get the row headed "Smoothed". These numbers give, by means of a parabolic formula, the following maxima and minima:

Maximum			Minimum			Range
January	17	83.7 p. c.	May	22	79.2 p. c.	5.0 p. c.
August	17	84.4 „	October	27	81.5 „	

WIND.

The direction of the wind was observed at the winter quarters, reckoned from the *true* meridian. The following Tables give the observed directions of the wind and the velocity, in metres per second, for each even hour and for the different months. 0 indicates Calm.

The velocity of the wind was measured with MOHNS hand-anemometer, friction-coefficient one metre per second.

1898. September.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
19	1	2	2	E 2	E 3	E 0	S 0	SW 2	S 0	0	0	0
20	0	N 0	W 0	N 2	0	E 0	NE 2	NE 3	NE 5	E 5	E 2	N 4
21	N 5	N 6	N 6	N 6	N 3	N 6	N 4	N 4	NNW 3	NNW 4	NW 2	NW 4
22	NW 4	NW 6	NNW 4	NNW 6	NNW 3	NW 4	NW 3	NE 2	N 1	N 4	NNW 4	NNW 4
23	NNW 1	NNW 4	NNW 2	W 6	NW 1	N 0	N 0	NE 0	NE 6	NE 7	ENE 5	ENE 7
24	ENE 10	NE 7	NE 9	NE 4	NE 2	N 5	NE 3	N 4	N 5	NNW 5	W 4	NW 4
25	NNE 4	NNE 2	NNE 2	NE 3	NE 2	NE 4	NE 3	N 2	W 2	NW 0	NNW 3	NNW 6
26	NW 1	NE 6	NE 5	N 5			N 8	N 5	N 7	N 5	NE 3	
27	N 4	NNW 5	N 3	N 2	N 5	E 2	E 5	NE 6	NE 8	NE 4	N 8	N 4
28	N 4	N 7	N 5	NE 6	NE 6	NE 4	NNE 6	NNE 5	NNE 4	NNE 3	N 4	N 4
29	N 5	N 0	0	N 4	0	0	N 2	N 2	N 4	N 2	N 0	N 1
30	N 3	E 1	E 1	E 0	E 0	E 2	E 2	NE 2	0	NE 2	NE 2	NE 2
Mean	3.5	3.9	3.3	3.8	2.5	2.7	3.2	3.1	3.8	3.4	3.1	3.6

1898. October.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NE 1	NE 3	NE 2	NE 2	NE 2	NE 1	NE 0	0	0	NE 2	NE 0	N 1
2	N 1	N 1	N 0	N 0	N 2	N 4	N 2	N 3	N 2	N 5	N 3	0
3	E 3	N 2	N 1	SE 0	E 2	0	NE 2	NE 2	NE 2	E 2	E 1	N 1
4	NE 2	NE 3	NW 2	NW 2	N 1	N 0	E 3	N 0	N 0	N 0	N 0	N 0
5	N 2	0	S 0	NW 4	NW 2	NNW 3	0	N 0	N 0	W 4	0	0
6	NW 1	0	N 4	N 3	N 2	N 5	N 4	N 8	N 5	N 5	NE 9	NE 9
7	N 8	NNE 7	N 7	N 6	NE 2	NE 1	N 2	N 2	0	NW 4	NE 2	N 6
8	NE 4	NE 1	NE 7	N 5	N 3	N 4	N 4	N 3	N 3	N 4	NE 4	NE 3
9	N 3	NE 8	N 5	N 6	N 4	NE 4	NE 2	N 5	N 3	N 0	NE 4	NE 3
10	NE 2	NE 2	NE 5	NE 5	NE 5	NE 5	NE 3	NE 6	NE 2	NE 3	NE 2	NE 2
11	NE 2	NE 2	NE 5	NE 2	0	0	E 2	E 1	E 2	NE 1	NE 0	NE 1
12	N 2	0	N 0	N 0	N 0	N 0	NNW 2	NNW 3	NW 1	W 2	0	0
13	0	E 1	0	SE 2	E 1	E 3	0	NE 3	NE 7	NE 1	NNE 3	NNE 0
14	NNE 3	NNE 3	NNE 3	NNE 3	NW 6	W 9	SSW 13	SSW 10	S 18	SSE 7	E 3	0
15	0	NNE 1		NNE 2	NE 0	N 0	S 11	SSE 17	SSE 18	S 18	S 20	S 11
16	S 8	S 5	NW 0	NW 0	0	N 1	NW 0	0	0	W 0	SW 0	SW 0
17	NE 1	NE 6	NE 2	NE 3	NW 0	W 0	0	NW 1	ENE 3	ENE 5	NE 1	NE 5
18	NNE 2	N 0	N 0	N 0	N 1	0	N 2	N 0	N 0	N 1	NE 1	NE 2
19	NE 2	N 0	N 2	N 3	N 3	N 2	N 2	NE 1	NE 4	NE 4	NE 4	NE 5
20	NE 5	NW 5	NW 5	N 5	N 2	N 3	N 2	N 5	N 3	N 3	N 4	N 4
21	N 2	N 2	N 5	N 5	N 4	N 0	N 4	N 0	N 4	N 4	N 5	NW 6
22	N 3	N 2	N 2	W 5	NW 3	NW 2	NNW 6	N 2	W 6	W 7	W 5	NW 4
23	NNW 5	NW 6	NW 5	NW 3	N 4	N 4	NW 5	NW 1	NW 6	NW 5	NW 3	NW 4
24	NW 5	NW 4	NW 5	NW 4	N 6	N 5	N 6	N 3	N 3	SE 4	NE 4	NE 3
25	NE 3	NE 2	N 4	NE 3	NE 5	NE 3	N 5	N 2	N 2	N 3	N 4	N 5
26	N 3	NE 4	NE 2	N 4	N 3	N 5	N 4	N 3	N 4	N 5	N 2	0
27	N 4	N 3	N 2	N 5	NE 3	N 4	N 3	N 2	N 3	N 3	N 0	N 4
28	N 1	E 0	E 3	E 0	E 4	E 0	N 3	N 2	W 2	W 0	E 2	E 3
29	E 0	E 3	0	NE 4	NE 3	NE 3	N 4	NW 4	N 3	N 0	0	0
30	0	0	N 1	0	S 0	0	SE 2	SE 2	SE 2	S 0	SW 0	E 4
31	E 2	SW 0	SSW 2	S 2	E 2	N 3	N 5	N 4	N 3	0	0	N 1
Mean	2.6	2.4	2.6	2.8	2.4	2.4	3.3	3.1	3.6	3.3	2.8	2.8

1898. November.

Rice Strait. $\varphi = 78^\circ 46' $ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	N 0	N 2	N 3	N 2	NW 3	NW 3	NW 0	NE 2	0
2	0	NE 4	0	NE 0	E 4	W 0	W 0	N 0	0	0	N 0	N 0
3	NE 2	E 2	E 2	N 2	0	N 0	N 0	NNE 5	NNE 5	NE 5	NE 5	N 2
4	NE 5	NW 3	0	0	N 0	W 0	0	0	SW 0	S 0	0	0
5	0	0	0	S 0	N 2	W 0	W 0	SW 0	0	0	NE 2	S 0
6	0	0	0	N 2	E 1	NNW 1	0	S 1	NNW 3	N 3	N 0	0
7	E 0	0	0	W 0	NE 0	0	0	0	0	N 1	NW 4	NW 4
8	NW 7	NNE 9	NNE 6	N 6	NNE 9	NE 5	N 5	NW 3	NW 0	0	0	
9	N 3	W 0	NNW 3	E 3	NW 3	N 0	NE 2	N 2	NE 4	S 0	0	0
10	NE 0	NE 3	NE 0	NE 1	0	E 3	E 0	0	0	0	NE 4	N 2
11	N 5	N 3	0	NE 0	NW 1	N 0	N 0	N 1	N 3	NE 0	NE 2	NE 4
12	NE 0	NE 1	NE 3	NE 4	NW 0	NE 6	N 3	N 3	N 5	N 5	N 6	N 4
13	NE 3	NE 0	NE 0	NE 2	N 3	SE 0	S 0	0	W 0	0	0	0
14	NW 0	0	0	0	0	W 0	0	W 0	W 0	W 0	S 0	0
15	0	0	0	0	0	0	NE 2	N 2	N 0	N 2	0	0
16	S 0	0	0	S 0	0	0	SW 0	S 0	0	0	W 3	0
17	0	W 0	SW 2	0	E 2	0	NE 2	NE 0	0	0	0	NE 2
18	0	NW 2	0	0	0	0	N 2	N 1	0	0	NW 1	0
19	0	0	E 2	ESE 1	E 2	E 0	E 2	S 0	N 3	N 0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	NE 0	0	0	0	0	0	0
22	N 2	NE 2	NE 2	N 3	N 2	N 2	NW 4	WNW 3	NE 8	NE 5	NE 4	NE 1
23	NE 6	NE 2	NE 3	NE 0	SE 0	S 2	S 9	S 13	S 10	SW 12	SW 10	SW 8
24	SW 8	SW 0	NW 1	NW 0	0	NE 7	ENE 4	ENE 2	ENE 2	ENE 6	NE 3	N 5
25	N 4	NE 2	N 2	NE 3	NE 3	NE 0	S 0	S 2	SE 2	SSW 14	SSW 12	SSW 13
26	SSW 15	SSW 13	SW 12	SW 13	SW 8	SW 7	0	0	0	0	0	N 0
27	0	N 2	N 4	NE 7	NW 0	NE 6	NE 3	NE 3	NE 4	NE 3	NE 7	NE 7
28	NE 9	N 7	N 5	N 5	N 3	NE 6	N 3	N 3	N 3	N 2	N 2	N 2
29	0	0	0	0	0	0	N 0	0	0	0	W 2	W 0
30	SSW 0	0	0	0	0	0	0	0	0	0	0	0
Mean	2.3	1.8	1.6	1.7	1.5	1.6	1.4	1.6	1.8	1.9	2.3	1.8

1898. December.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	NE 0	0	0
3	NE 0	0	0	NE 2	NE 2	NE 0	0	NE 2	0	N 3	N 1	0
4	0	0	N 1	N 2	N 2	N 0	N 2	0	N 2	N 3	N 0	N 0
5	NW 2	N 1	NE 2	NE 2	N 3	N 0	N 0	N 2	N 3	NE 4	N 3	NE 2
6	N 0	N 0	NW 0	0	0	0	0	0	0	S 0	0	S 0
7	0	0	0	NE 7	NE 2	N 2	NE 5	NE 1	0	0	0	NW 0
8	NW 0	NW 0	NW 0	NW 0	0	0	0	0	0	0	0	NW 0
9	0	0	S 0	0	0	0	0	N 0	N 0	0	0	0
10	NW 4	E 0	N 2	0	0	0	NE 4	NNE 2	0	NE 2	0	0
11	N 2	NNE 4	NNE 2	NNE 3	NE 2	N 1	NE 3	NE 3	NE 5	NE 4	NE 3	NE 3
12	N 0	S 2	0	0	0	0	NNW 0	N 0	0	0	N 3	0
13	0	0	SW 5	SW 2	SE 0	NE 5	N 3	N 0	N 2	N 3	N 3	NW 2
14	NW 1	N 2	N 0	E 3	NE 2	NE 2	NE 3	0	0	0	NE 2	NE 2
15	NE 3	NE 3	NNW 5	N 5	N 8	N 5	N 5	NE 4	NE 4	NE 6	NE 3	NE 6
16	NE 4	NE 3	NW 5	N 5	N 2	N 1	N 5	N 3	N 4	N 5	N 2	N 0
17	0	0	SW 2	SW 2	SW 0	S 0	E 2	E 2	0	SE 3	SE 0	SE 2
18	0	0	NNW 4	0	0	0	0	NE 0	NE 4	0	N 3	NE 3
19	0	NE 2	0	0	0	0	0	0	W 2	W 3	SW 2	S 0
20	0	0	0	0	NE 3	NNE 3	NNE 2	0	0	W 2	N 2	NE 3
21	NNW 4	NNW 5	NNW 7	NNW 9	NW 3	SW 2	N 2	NE 4	E 4	E 4	E 3	E 2
22	NE 7	NE 3	NW 3	NE 3	NE 3	N 3	0	0	0	W 0	0	W 2
23	0	0	0	0	0	0	NW 1	N 2	S 0	S 0	E 1	NNW 2
24	NNW 0	N 3	N 3	N 2	N 2	N 6	N 2	E 2	NE 2	N 3	N 4	N 6
25	N 6	N 7	NE 8	NE 7	N 4	N 5	N 3	N 5	E 3	N 3	N 6	0
26	N 3	0	0	NE 4	N 2	N 2	N 2	N 3	ENE 5	NE 5	N 5	N 7
27	NE 4	N 6	N 7	N 8	N 8	N 8	N 8	N 6	N 5	N 5	N 3	N 3
28	N 3	NE 7	NE 4	NNW 4	N 4	N 4	N 3	N 2	NW 2	N 4		0
29	NW 0	NW 1	NW 2	NW 0	NW 0	0	SW 0	0	0	W 2	0	NE 2
30	NE 2	NE 3	NNW 3	N 4	NE 2	NE 2	NE 4	NE 8	NE 6	NE 7	NE 2	NE 4
31	NE 7	NE 2	E 2	E 2	E 7	NE 4	NE 4	NE 5	E 2	NE 8	NE 1	NE 6
Mean	1.7	1.7	2.2	2.5	2.0	1.8	2.0	1.8	1.8	2.5	1.7	1.8

1899. January.

Rice Strait. $\varphi = 78^\circ 46' $ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	N 3	N 3	N 2	N 3	W 2	NW 4	NW 3	0	S 1	S 2	S 2
2	SW 2	SW 2	NW 4	SE 0	E 3	S 0	N 3	N 2	N 3	N 4	NE 5	NE 3
3	NE 0	NE 1	NE 3	NE 5	NE 3	NE 3	NE 3	N 2	N 3	S 11	SW 6	SW 3
4	0	0	0	NW 7	NW 3	NW 2	0	0	0	SW 1	0	W 0
5	0	SE 2	SE 2	SE 2	E 1	E 2	W 2	0	0	0	0	N 2
6	0	0	N 0	0	0	0	0	SE 1	0	0	0	SW 0
7	0	NW 2	0	NE 7	NE 4	NE 3	N 2	0	NE 2	N 3	W 1	NE 4
8	E 3	E 2	NE 7	E 5	E 2	E 8	E 2	E 2	E 2	NE 5	S 3	W 3
9	N 2	N 7	N 3	E 4	NE 1	NE 2	NE 2	N 4	N 3	N 5	N 2	NW 0
10	NW 3	0	S 1	0	0	E 4	E 3	E 4	NE 6	N 5	N 7	N 5
11	NE 6	N 3	NE 7	N 11	NE 3	NE 3	N 5	N 3	N 2	N 2	N 3	N 2
12	N 5	N 6	N 5	0	N 8	N 6	N 3	0	N 3	N 7	N 5	N 3
13	N 0	NW 3	N 2	NE 4	N 3	N 2	N 4	0	E 4	E 4	S 1	E 4
14	NNE 4	NE 3	NE 5	NE 3	N 4	N 5	N 2	N 3	0	N 2	N 4	N 2
15	N 0	NE 2	NE 3	NE 5	NE 5	NE 3	NE 3	NE 3	0	NE 4	0	N 2
16	N 5	N 3	N 6	NE 7	NE 4	E 5	E 4	E 4	E 4	E 3	W 0	0
17	0	E 4	0	E 3	N 3	N 2	N 2	N 2	N 2	N 0	NE 3	NE 2
18	N 2	W 4	NW 3	NE 6	E 3	E 4	E 4	E 6	E 4	E 3	N 3	NW 5
19	NW 2	NE 2	0	NE 4	N 2	E 4	NE 3	NE 2	N 2	E 2	W 3	N 3
20	N 0	0	N 3	N 0	N 1	NE 6	NE 7	N 5	N 6	N 4	N 6	N 4
21	N 3	N 3	NW 4	NW 7	N 6	N 2	NE 4	N 5	NE 3	N 3	N 2	0
22	N 0	N 0	N 2	N 2	N 3	N 4	N 3	0	N 3	E 0	NE 2	NE 3
23	N 2	W 2	0	0	N 2	SE 3	NE 4	N 2	E 2	E 2	NE 1	N 4
24	N 2	N 2	0	E 4	N 4	N 4	N 3	E 3	E 3	E 4	N 3	N 4
25	N 3	NW 5	NW 2	NW 2	0	NW 2	SE 0	0	0	E 4	0	E 4
26	E 4	E 0	E 0	NW 2	W 1	S 1	0	0	S 0	SW 1	0	0
27	N 0	N 0	N 3	N 7	NE 5	NE 5	NE 6	NE 2	NE 3	NE 6	NE 3	NE 3
28	NE 4	NE 4	NE 5	NE 7	NE 2	NE 6	E 7	NE 4	E 6	E 5	NE 6	N 6
29	N 5	N 3	N 5	N 6	N 5	NE 4	E 3	NE 3	NE 3	N 8	NE 3	NE 3
30	N 4	NW 3	NW 3	SE 2	N 2	N 0	NNE 4	NE 5	N 7	N 5	NW 6	N 3
31	N 3	N 5	N 0	ESE 12	NE 2	NE 4	E 2	NE 3	NE 2	NE 4	NE 3	N 3
Mean	2.1	2.5	2.6	4.1	2.8	3.3	3.0	2.4	2.5	3.5	2.7	2.6

1899. February.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 5	N 4	N 4	N 5	NE 7	N 5	N 2	E 7	E 4	ENE 6	NW 7	E 5
2	NE 5	N 9	N 7	NNE 4	NE 3	N 2	NE 3	NE 3	N 5	N 5	N 3	N 4
3	N 4	N 2	0	NW 3	SSW 1	NE 4	N 4	N 6	NNW 4	NW 6	NW 5	NW 5
4	NW 4	NW 5	N 0	N 5	E 2	N 6	E 4	E 2	NE 2	NE 5	NE 1	N 2
5	N 2	N 3	N 5	N 3	NE 5	W 2	NE 3	N 7	N 5	N 5	N 5	N 7
6	N 5	N 3	N 0	NNE 6	NE 4	NE 3	0	N 1	0	0	N 4	S 2
7	S 2	NE 4	NE 3	N 4	N 3	N 3	W 2	NE 3	0	W 2	W 2	N 2
8	N 0	N 2	N 1	NE 2	0	0	0	0	0	W 2	0	NW 1
9	0	NW 2	SW 9	SW 11	S 10	E 6	E 3	N 7	N 8	N 7	N 7	NNW 7
10	N 4	N 6	N 10	N 7	NE 7	N 7	N 4	NE 4	N 3	N 5	N 3	NE 4
11	N 4	N 3	N 3	N 5	NNE 5	NNE 8	N 10	N 7	N 5	N 6	N 8	N 4
12	N 3	N 6	N 5	N 7	NE 5	NE 5	NE 4	N 5	N 4	E 0	0	N 3
13	0	0	N 5	0	0	N 3	E 0	S 3	W 0	0	NNW 4	0
14	0	NNW 1	NNW 3	NNW 4	E 0	0	E 0	0	0	E 2	NE 5	N 0
15	N 3	N 2	NE 3	N 3	N 0	E 2	N 5	0	N 2	S 2	SE 1	W 1
16	W 3	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	S 0	S 4	0	S 3	0	0	0	0	NW 2
18	W 2	0	W 2	W 0	0	ENE 8	NE 5	NE 2	NE 0	NW 2	NE 3	0
19	N 4	NE 2	0	0	W 1	W 1	E 2	S 2	S 2	0	0	NW 0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	N 0	0	SW 1	0	NE 0	0	NW 2	NW 2
22	E 0	E 2	NE 2	0	0	0	0	0	0	0	0	0
23	0	W 2	0	0	S 2	S 1	0	0	0	0	0	0
24	0	W 2	0	0	0	0	S 0	SW 0	0	N 3	N 3	0
25	0	S 2	0	E 2	W 0	E 4	S 0	SW 1	NE 2	NE 0	0	0
26	NE 3	NE 2	NE 2	NE 4	N 4	W 2	NE 3	N 3	0	0	N 4	N 2
27	N 2	NNE 3	NE 1	E 3	E 5	ESE 2	E 3	E 1	NE 2	ENE 3	N 2	N 0
28	0	0	0	0	0	0	W 2	E 1	E 0	0	NE 2	0
Mean	1.9	2.4	2.3	2.8	2.4	2.6	2.3	2.3	1.7	2.2	2.5	1.9

1899. March.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 2	N 3	NE 3	W 1	NW 0	0	W 0	W 0	0	ENE 3	NE 4	N 2
2	NE 4	N 4	NE 3	NNE 5	NE 7	NE 5	E 4	E 5	E 5	NW 1	E 3	0
3	0	SW 0	N 1	N 4	ENE 4	E 0	NE 3	0	0	NNW 4	N 4	N 0
4	N 1	NE 3	0	ESE 3	N 4	NNE 4	NE 4	N 5	N 7	N 8	0	N 3
5	NE 2	N 8	N 4	N 5	NE 4	NE 3	NE 3	0	0	NE 0	0	N 4
6	N 0	N 6	N 4	N 1	N 2	N 6	NNW 3	SW 2	S 0	E 3	0	N 5
7	N 5	N 1	N 3	NE 2	E 5	ESE 6	NNE 3	NE 6	NE 4	NNE 7	NNE 5	N 5
8	N 3	N 3	N 5	NW 6	NE 5	E 4	N 3	N 1	N 3	E 2	E 5	0
9	NE 5	NE 12	N 3	N 3	ENE 9	NE 3	NE 5	E 5	NE 6	N 3	NNW 5	0
10	0	NW 2	NW 3	NW 3	SW 3	S 1	SE 3	S 0	S 0	0	0	0
11	0	0	0	E 0	0	N 2	0	0	N 3	N 3	N 1	N 4
12	SW 3	SW 0	0	SE 0	N 0	0	N 0	N 1	N 3	N 2	0	0
13	NE 6	0	N 6	NE 6	NE 6	NE 4	NE 7	ENE 7	NE 6	N 7	0	E 2
14	E 1	0	NNW 3	N 1	N 5	N 3	W 1	S 0	S 0	NE 2	0	N 0
15	0	NW 3	E 3	N 5	NW 2	W 1	0	N 4	NE 3	0	0	N 0
16	N 0	0	0	NE 3	0	S 0	SW 1	0	N 4	W 0	NW 4	0
17	0	0	E 0	0	0	0	0	0	SW 0	SW 0	0	0
18	0	0	0	SW 2	SW 0	NE 4	NW 3	0	NW 3	NW 4	0	N 0
19	N 0	N 3	N 4	NE 5	SE 3	SE 3	NE 6	NE 3	NE 6	NW 7	N 6	NE 2
20	SW 2	0	N 3	S 1	NNE 4	NE 4	NE 2	NW 5	N 3	N 8	N 6	N 10
21	NE 3	NE 3	NE 5	ENE 3	E 5	E 3	NE 5	N 2	E 3	E 4	E 3	N 4
22	N 3	NNW 4	NNW 4	NE 7	NE 4	NW 4	NNW 7	N 7	NNE 4	NNW 7	NNE 8	NNE 4
23	NNE 5	NNE 8	NE 3	N 7	NE 5	0	0	0	0	0	S 0	NW 2
24	SE 2	0	E 2	S 0	S 1	SSW 2	SSW 3	SW 1	SW 0	SW 0	0	0
25	W 2	0	N 0	0	0	NE 3	NE 5	N 3	NE 5	NNE 9	NNE 4	NNE 4
26	N 5	0	NE 3	N 3	N 3	N 5	NE 5	E 5	NE 6	N 3	N 6	N 2
27	N 4	0	0	S 3	N 0	NE 3	NE 3	W 0	0	S 0	0	N 7
28	N 5	N 5	N 6	N 4	N 1	SSW 4	S 0	0	N 3	N 2	N 0	NW 2
29	NNW 3	0	0	SSW 2	E 5	NE 4	0	E 2	E 2	NE 2	NE 3	NE 2
30	NE 3	N 4	N 4	N 4	E 3	S 2	E 2	SW 2	S 2	E 4	0	0
31	0	2	N 2	W 2	0	0	NE 3	NE 2	NE 1	N 3	N 3	N 5
Mean	2.2	2.4	2.5	2.9	2.9	2.7	2.7	2.2	2.6	2.8	2.3	2.2

1899. April.

Rice Strait. $\varphi = 78^\circ\,46'$ N. $\lambda = 74^\circ\,57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 4	N 3	N 3	N 0	N 5	N 5	NE 3	NE 3	NE 6	N 5	N 4	0
2	0	N 4	N 5	N 6	N 5	N 4	N 4	N 3	NE 4	NE 7	E 0	NE 5
3	NNE 4	N 3	N 4	E 5	E 4	N 3	N 4	N 5	N 3	0	0	NW 3
4	NW 4	0	N 0	W 2	0	0	0	0	W 0	E 0	N 2	E 3
5	N 4	N 4	N 5	N 6	NNE 2	N 4	N 0	N 0	0	SE 1	SE 2	0
6	0	0	0	W 1	0	NE 2	SW 2	W 0	E 0	E 2	E 2	E 3
7	0	E 2	0	SW 0	0	0	SW 1	SW 0	0	E 0	0	N 2
8	0	0	0	E 2	N 3	0	0	0	0	E 0	NW 0	0
9	0	0	0	S 2	N 0	W 1	W 0	0	0	N 1	W 0	0
10	0	0	0	SW 2	E 3	0	0	E 3	0	0	SW 0	0
11	E 3	E 1	NE 3	E 3	E 2	E 3	E 2	E 1	0	0	E 1	0
12	0	NE 2	NE 2	0	0	0	0	0	0	E 0	0	0
13	0	S 1	0	0	0	N 2	E 2	E 2	E 3	E 2	0	0
14	0	0	0	0	0	0	0	0	E 3	E 2	0	NE 3
15	0	0	0	E 3	0	0	SE 0	E 3	0	W 4	SW 2	N 3
16	WSW 2	0	0	0	W 3	SW 5	W 6	0	SW 8	SW 7	0	0
17	NE 1	NE 2	0	SE 0	NE 3	E 3	E 3	E 2	E 1	N 2	NE 3	N 4
18	N 7	NNW 7	0	E 5	NE 5	E 5	E 5	NE 6	E 4	E 4	N 3	N 4
19	N 7	NE 4	NE 3	N 6	N 6	N 6	N 6	N 7	N 6	N 5	N 5	N 4
20	N 4	NNW 3	NNW 6	NNW 9	E 3	NE 7	NE 3	NE 4	N 4	N 5	N 5	N 2
21	N 2	N 6	NW 3	N 2	N 4	N 5	E 3	E 1	N 2	0	0	S 2
22	0	NE 3	NE 3	NE 3	E 3	E 3	E 4	E 3	NE 5	N 8	N 4	N 4
23	NE 1	0	N 5	N 8	NE 4	NNE 3	NE 5	NE 3	NE 4	NE 4	N 5	N 0
24	S 3	0	N 2	NE 4	NE 4	NE 4	N 2	0	NNE 5	NNE 5	N 3	NNE 4
25	N 2	N 0	N 4	0	NE 2	E 3	0	E 4	0	E 0	0	N 3
26	0	0	0	0	N 2	E 3	N 1	N 0	N 0	N 3	N 0	NE 0
27	ENE 6	N 4	N 6	0	NNW 4	N 5	N 2	NNW 6	NE 3	N 4	N 5	N 5
28	N 2	N 7	N 3	NW 5	N 4	NE 3	NE 5	ENE 5	NE 4	NE 3	W 4	SW 3
29	SW 7	SW 2	SW 2	NNE 5	0	0	N 4	N 6	NNE 8	NNE 8	NE 9	NE 7
30	NE 6	N 3	N 2	0	NE 1	NE 0	0	NW 5	NW 2	NNW 4	NW 4	NE 2
Mean	2.3	2.0	2.0	2.6	2.4	2.6	2.2	2.4	2.5	2.9	2.1	2.2

1899. May.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NE 4	NE 3	NE 6	NE 5	N 3	NE 4	NE 6	NE 3	NE 4	NE 2	0	N 6
2	N 5	N 4	N 2	N 0	N 1	NNE 5	E 2	N 3	N 5	N 6	N 4	N 3
3	N 1	0	0	N 3	NE 3	E 2	0	NW 2	0	0	0	0
4	0	0	0	0	E 1	E 1	E 2	0	0	0	N 3	S 2
5	0	N 1	0	N 4	E 3	NE 3	N 4	N 4	N 4	SSW 2	0	0
6	0	E 2	0	E 0	0	S 4	SW 5	SW 8	SW 7	SW 6	S 5	N 3
7	N 3	N 3	NW 3	N 2	SE 3	E 4	E 4	NE 4	NE 2	NNW 4	NE 4	NE 4
8	N 5	NW 7	N 7	NE 5	NE 7	E 5	NE 6	NE 4	E 5	E 3	E 3	NW 5
9	N 2	0	NE 3	E 3	N 4	NNE 4	N 2	NNE 4	NNE 5	NNE 5	N 2	N 4
10	N 4	NNE 4	N 2	ENE 3	E 4	E 3	E 3	E 2	E 1	E 2	NE 4	NE 5
11	0	E 3	E 0	E 3	E 3	NE 5	N 3	NE 3	E 3	N 2	NE 3	0
12	0	0	0	SE 2	ESE 3	ESE 1	E 2	E 2	E 3	E 4	NNW 4	NW 1
13	NW 3	NW 3	NW 5	NW 3	0	0	0	SW 4	SW 6	S 9	SW 8	SSW 15
14	SSW 8	SSW 8	SSW 11	SSW 16	SSW 16	S 15	S 13	SW 5	SW 4	SW 2	SW 2	SW 9
15	SW 9	SW 8	SW 7	SSW 8	SSW 10	SW 8	SSW 10	SW 8	SW 7	SW 7	SW 6	SW 7
16	SW 9	S 15	S 10	S 13	S 12	S 14	S 10	S 14	S 11	S 10	S 8	S 7
17	S 7	S 6	S 4	W 3	W 3	W 2	E 2	0	NE 3	E 2	E 3	E 2
18	NE 4	NE 4	E 4	0	S 0	0	S 0	S 0	SW 2	SW 3	SW 2	SW 0
19	SW 1	0	0	E 0	0	E 0	WSW 5	WSW 3	NE 4	SW 5	NE 3	0
20	0	0	0	E 3	E 2	E 1	0	N 2	0	0	0	0
21	0	0	NNW 2	NW 2	NE 3	0	E 3	E 3	NE 4	NE 0	0	NE 4
22	NW 3	NE 2	NW 5	NNW 4	NW 5	NNE 5	N 4	N 5	N 4	N 3	N 3	0
23	0	0	0	E 3	E 3	0	E 2	E 4	NE 4	N 0	0	NE 5
24	NE 3	E 5	NE 3	E 3	E 4	E 5	E 5	E 3	NNW 3	NNW 4	NNW 3	NE 3
25	0	NNW 6	NNW 0	N 6	NE 3	N 7	N 5	N 5	NE 4	N 3	N 4	0
26	N 3	N 4	N 4	N 3	NE 5	E 4	E 4	E 3	0	W 4	W 6	SW 6
27	SW 2	SW 4	SW 5	SW 6	SW 4	E 3	0	SW 5	0	0	0	E 0
28	NE 0	NE 0	NE 3	NE 3	E 3	E 5	E 5	E 4	E 2	E 5	NE 2	0
29	NE 1	N 4	0	E 2	E 3	E 3	0	N 3	0	0	0	NW 2
30	0	0	S 2	N 2	N 3	N 2	0	0	N 4	N 5	NNW 5	0
31	0	NE 3	0	SW 0	NE 4	N 2	0	N 3	N 3	N 4	N 5	0
Mean	2.5	3.2	2.8	3.6	3.8	3.8	3.5	3.6	3.4	3.3	3.0	3.0

1899. June.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	W 2	W 0	0	0	0	0
2	0	0	E 2	0	0	E 2	E 2	N 3	N 5	NNW 4	N 3	N 3
3	N 3	N 5	N 4	N 4	NW 6	0	0	WSW 4	S 5	S 6	SSW 10	SW 13
4	SW 9	SW 7	SW 10	SW 10	SW 14	SW 13	SW 13	SW 11	SW 12	SW 12	SW 11	SW 13
5	SW 11	SW 6	SW 8	0	NNW 4	NE 4	NE 3	N 1	N 0	0	NW 6	NW 8
6	NW 4	NE 2	NW 3	NNW 5	N 4	N 6	N 3	N 8	N 4	N 7	N 8	N 2
7	N 3	N 8	N 3	N 3	N 4	N 7	N 0	N 4	0	N 6	0	N 4
8	0	NE 1	NE 3	0	N 3	NE 3	NE 4	NE 3	0	N 3	N 3	N 4
9	N 5	N 4	0	0	WSW 7	WSW 5	SW 6	SW 9	SW 8	SW 10	SW 11	SW 13
10	SW 12	SW 9	SW 12	SW 11	SW 8	S 11	S 7	S 7	SSW 13	SSW 10	SSW 13	S 6
11	S 14	SSW 8	SW 5	SW 2	N 3	N 3	N 4	N 3	N 0	N 4	N 0	S 2
12	0	0	SW 4	SW 3	SW 3	0	0	SW 2	0	N 3	N 3	0
13	N 3	NNE 3	0	N 4	NE 5	0	NE 5	NE 4	0	0	0	0
14	0	0	0	W 4	W 5	SSW 7	SSW 7	SW 5	W 3	0	0	0
15	0	0	N 4	N 0	N 2	N 5	N 4	0	0	N 3	N 3	NE 0
16	N 4	NE 3	N 2	N 3	N 4	N 5	E 4	N 0	NE 3	E 8	N 2	N 3
17	N 4	N 4	NE 5	N 5	N 11	N 5	0	NW 5	NW 6	NW 5	SW 9	SW 8
18	SW 10	S 12	S 12	SSW 9	SSW 9	SSW 9	S 8	S 6	S 7	S 8	S 8	S 10
19	S 10	S 9	S 10	S 9	S 8	S 10	S 8	S 11	S 11	S 8	S 9	S 9
20	S 8	S 9	S 4	S 6	S 4	S 4	S 2	S 3	S 4	S 3	S 4	S 4
21	S 8	S 9	S 8	S 7	S 5	S 5	S 6	S 8	S 7	S 5	S 5	S 5
22	S 4	S 4	S 4	S 4	S 4	S 9	S 7	S 6	S 3	S 4	SSE 3	0
23	SSE 7	S 11	S 7	S 9	S 6	S 9	S 10	S 10	S 13	S 13	S 9	S 7
24	S 8	S 10	S 12	S 7	S 6	S 7	S 7	S 8	S 8	S 5	S 9	SW 9
25	SW 6	SW 5	SW 4	NW 4	0	SW 8	SSW 8	SW 6	WNW 6	0	0	W 6
26	S 11	SSW 5	0	SSW 7	SW 6	SW 7	WSW 4	SW 6	WSW 6	W 3	W 3	W 3
27	W 4	NE 4	NE 4	NE 4	NE 5	NE 4	NNW 3	NNW 2	N 3	N 4	NW 2	NW 4
28	0	0	NW 4	W 4	0	0	0	S 3	S 3	0	0	0
29	0	N 4	NE 5	N 6	N 3	N 2	W 0	NE 2	0	0	0	0
30	0	0	WSW 2	0	NE 3	0	S 0	S 0	S 0	S 0	0	0
Mean	4.9	4.7	4.7	4.3	4.7	5.0	4.2	4.7	4.3	4.5	4.5	4.5

1899. July.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	0	0	0	E 2	S 4	W 5	WNW 4	SW 8	0	SW 9	S 4	W 2
2	WSW 3	WSW 4	WSW 4	NW 2	SW 3	SW 3	W 4	W 6	S 8	SW 6	SW 8	SSW 7
3	WNW 8	0	0	0	0	SSW 5	0	SSW 7	SW 4	SW 8	SW 3	0
4	0	0	0	0	0	S 8	S 8	S 10	S 10	S 9	S 9	S 8
5	SW 9	SW 7	SW 4	0	SE 2	0	SW 4	SW 5	SW 7	SW 8	SW 9	S 8
6	S 8	S 8	S 8	S 6	S 8	S 10	S 8	S 10	S 10	S 10	S 12	S 11
7	S 10	S 11	S 10	S 12	S 12	S 10	S 12	S 5	S 6	W 6	SW 2	SW 1
8	SW 2	SW 1	SW 3	S 4	0	S 1	0	0	0	N 1	0	N 2
9	N 2	N 3	0	S 3	SW 8	SW 6	S 5	S 7	S 7	S 7	S 9	S 8
10	S 7	S 4	S 1	0	SE 2	0	0	S 3	S 4	S 5	S 4	S 5
11	S 5	SW 4	SW 4	0	NW 2	SW 5	SW 6	SW 5	SW 5	NW 2	W 5	SW 3
12	SW 8	SW 7	SW 7	NW 2	W 4	SSW 6	SW 8	SW 10	SW 11	SW 5	SW 7	SW 0
13	SW 0	0	SW 0	N 0	0	W 3	0	0	SW 3	SW 4	SW 2	NW 3
14	S 4	S 6	S 5	SSW 9	SSW 7	SSW 9	SW 8	SW 8	SW 8	SW 5	SW 8	SW 7
15	SW 10	SW 8	SW 6	W 6	W 3	W 2	N 2	N 2	0	N 2	0	N 1
16	NW 3	0	NW 7	NW 14	NE 5	NE 3	N 5	N 3	N 4	N 3	N 0	0
17	· 0	S 8	S 11	S 10	S 8	SW 8	SW 9	SW 10	SW 8	SW 8	SW 7	SW 10
18	SW 10	SW 10	SW 14	SW 14	SW 9	SW 10	SW 10	SW 10	SSW 7	SSW 8	SSW 10	S 13
19	S 13	S 14	S 11	SSW 13	S 13	S 12	S 11	S 12	S 11	W 10	W 10	W 8
20	WNW 5	W 2	0	0	0	NW 0	0	0	0	0	0	NW 4
21	SW 5	SSW 8	SW 7	S 10	SSW 10	SSW 10	SSW 9	SSW 10	SSW 11	SSW 10	SSW 9	SSW 6
22	SSW 10	SSW 5	SSW 6	SSW 5	SSW 2	E 0	NE 3	NE 2	0	W 2	NE 3	NE 2
23	E 0	0	0	0	S 2	S 2	SW 3	0	0	0	NE 2	N 4
24	N 7	N 0	N 4	N 2	2	3	4	5	4	4	8	12
Mean	5.4	4.6	4.7	4.8	4.4	5.3	5.1	5.8	5.3	5.5	5.4	5.2

1899. October.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
23	0	0	0	0	0	0	0	N 3	NE 4	NE 4	NE 3	NE 6
24	NE 6	NE 10	NE 10	N 11	SE 3	SE 2	0	0	0	0	0	0
25	0	0	0	0	0	0	NNE 2	E 1	0	0	WSW 2	0
26	0	0	0	0	0	NW 2	0	0	0	0	0	0
27	0	0	0	0	0	N 3	0	0	S 2	0	0	W 7
28	NE 7	NE 6	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0
Mean	1.4	1.8	1.1	1.2	0.3	0.8	0.2	0.5	0.7	0.5	0.6	1.4

1899. November.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	NW 3	0	0	0	0	N 2	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	N 3		
3	0	3	E 3	0	0	NW 5	NNW 4	NW 2	0	0	0	NW 2
4			0	0	0	SW 2	0	0	0	0	0	0
5	0	0	0	0	0	0	0	N 0	SW 4	N 6	NE 9	ENE 6
6	0	NE 3	NE 8	NNE 11	0	0	NW 5	N 7	0	0	0	0
7	0	N 4	SE 2	SE 3	S 2	0	0	0	E 0	0	0	SE 2
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13		0	SSW 5	0	0	E 6	SE 5	SE 2	SE 3	SE 0	0	0
14	0	SE 14	SE 15	0	W 3	SE 10	SE 4	SE 4	0	0	NW 4	NW 4
15	SE 0	SW 0	0	0	0	0	SE 3	SE 4	SE 6	SE 2	SE 4	0
16	SE 2	0	SE 3	SE 3	0	0	NW 2	0	0	0	0	0
17	0	0	0	0	0	0	0	0	SW 0	0	0	SE 2
18	SE 2	0	0	0	0	0	0	W 0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	S 0	0	0	0	0	0	0	0	0	N 2	0	0
22	0	0	0	0	0	E 0	0	0	0	0	0	0
23	0	0	0	0	0	S 2	0	0	0	0	0	2
24	0	0	0	0	0	E 0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	S 0	0	0	0	0	0	N 0
27	W 0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	S 0	SSE 0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0.1	0.9	1.2	0.6	0.2	0.8	0.8	0.6	0.4	0.4	0.6	0.6

1899. December.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	E 0	NE 0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	N 0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	N 0	0	0
7	SE 3	E 2	E 3	0	SE 2	SE 2	SE 2	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	ENE 4	E 2	E 8	E 3	S 3	S 0	S 0	SSW 0
13	0	E 7	0	N 8	0	0	S 2	0	0	0	0	0
14	0	0	0	0	E 0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	SE 4	SSE 4	SSE 4	SE 2	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	NE 3	0	0	0	0	0	0	0
22	0	0	0	NE 0	0	0	0	0	0	0	0	0
23	N 1	0	0	SE 7	SE 5	NE 8	NE 7	N 4	SE 4	SE 6	SE 7	SE 6
24	SE 6	SE 5	SE 3	SE 5	SSE 3	0	0	0	0	0	0	0
25	0	0	0	SE 4	SE 3	SE 3	SE 4	SE 5	0	0	0	0
26	0	0	0	0	0	0	0	0	0	N 1	S 2	S 3
27	S 3	SW 5	SW 3	0	S 3	0	0	0	0	0	E 3	SE 3
28	E 4	E 10	E 5	E 5	0	0	SE 0	E 1	0	SE 0	0	0
29	0	0	0	0	0	0	0	S 2	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	SE 0	0	0
Mean	0.6	0.9	0.5	0.9	0.7	0.6	0.9	0.6	0.3	0.2	0.4	0.4

1900. January.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	ESE 0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	N 0
5	NE 0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	S 0	0
7	0	0	W 2	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	ENE 2	0	0	0	0	0	0	0
15	0	0	E 2	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	SSE 0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	S 6	W 7	SSW 2	W 3
30	SSW 0	SSW 2	0	0	SSE 2	S 2	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0.06	0.1	0	0.1	0.06	0	0	0.2	0.2	0.06	0.1

1900. February.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	W 0	0	0	0
2	0	E 12	E 9	E 6	E 7	E 4	E 4	E 3	0	0	NE 0	0
3	4	0	0	0	N 3	0	0	0	N 15	N 11	N 12	NE 9
4	NE 13	NE 15	NE 8	E 13	ENE 9	E 4	E 8	E 5	0	0	0	NE 2
5	NE 2	E 2	0	0	0	NE 7	E 8	SE 6	SE 12	SSE 6	SSE 6	S 4
6	S 14	S 6	S 4	SE 5	0	0	0	0	0	0	0	0
7	0	0	0	0	NE 0	0	0	0	0	0	S 12	SE 10
8	SE 8	S 5	SE 6	0	E 3	NNW 3	SSW 3	SSE 6	N 1	S 3	SSW 4	SW 3
9	SW 5	SE 6	SE 5	SE 7	0	SE 9	SE 6	S 9	S 12	S 9	S 13	S 12
10	S 11	S 8	S 5	S 3	S 0	S 10	S 6	0	0	0	0	0
11	E 4	E 2	0	0	SE 0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	N 0	0	0	0	0	E 2
15	ENE 6	ENE 7	ENE 6	N 11	NNE 7	NE 6	ENE 8	NE 6	ENE 2	0	0	0
16	0	NE 3	NE 1	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	SSE 6	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	S 6	0	E 3	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	NE 0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	N 2	0	0	N 2	0	0
28	0	N 4	0	N 0	0	0	N 0	0	NNE 7	NE 6	NE 5	NE 3
Mean	2.4	2.5	1.6	1.8	1.0	1.6	1.6	1.5	1.7	1.3	1.9	1.6

1900. March.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	N 0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	SE 7
7	SSE 5	SSE 10	SSE 5	0	0	0	SE 4	0	0	S 0	W 6	0
8	N 2	E 2	SE 4	NE 2	N 2	0	0	0	0	0	0	S 2
9	S 1	NE 9	0	NE 0	NE 10	NE 12	NE 0	NE 0	NE 0	0	0	SW 2
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	N 2	0	0	0	0	0	S 3	N 4	NE 3
18	NE 8	NE 8	NE 7	NE 8	NE 6	NE 5	NW 0	N 0	NE 6	NE 5	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	3	0	0	0	E 9	NE 4	NE 14	NE 9	0	0	NE 5
21	0	NE 9	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	E 3	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	E 3	0	0	0	0	0	0
27	0	0	0	11	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	NE 2	0	0	0	0	0	0	0	0	NE 4	N 4
30	0	NNE 7	N 9	NE 7	0	0	0	N 2	N 7	N 7	W 3	NE 3
31	N 4	0	NE 11	E 2	0	NE 6	NE 5	NNE 3	N 7	0	0	0
Mean	0.6	1.7	1.2	1.0	0.6	1.1	0.4	0.6	0.9	0.5	0.5	0.8

1900. April.

Hvnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	N 2	0	0	0	0	0	0	0	0	0	0	S 0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	S 10	S 9	SW 4
10	SW 5	S 4	0	0	NNE 2	0	0	SW 4	NE 4	NE 8	NE 7	NE 3
11	N 9	NE 16	E 4	E 4	0	0	0	NE 4	0	0	S 0	0
12	0	0	E 11	NE 3	NE 7	NE 5	0	NNE 4	N 6	N 5	SE 13	S 14
13	0	E 13	E 11	E 13	NE 11	ESE 5	NNW 3	N 3	NE 10	NW 8	NE 3	N 6
14	NE 3	NE 6	N 3	0	0	N 6	0	0	NE 3	0	0	0
15	0	0	0	0	SW 2	NE 2	NE 2	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	NW 2	0	0	0	0	0
18	0	0	0	0	0	SE 3	0	0	0	0	0	0
19	0	0	0	0	SSE 3	SSE 3	0	0	0	0	0	0
20	N 0	0	0	0	0	0	0	SW 2	0	0	SW 0	2
21	S 2	0	0	0	NW 2	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	SW 5	0	0	0	0	0	0	0	0	N 0	0
25	SE 3	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	ESE 4	SE 3	SE 2	NE 2	NE 2
Mean	0.8	1.5	0.9	0.7	0.9	0.8	0.2	0.7	0.9	1.1	1.1	1.0

1900. May.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2^h		4^h		6^h		8^h		10^h		Noon		2^h		4^h		6^h		8^h		10^h		Midt.	
1	NE	0		0	SE	5	SE	2		0	S	3		0		0		0		0		0		0
2		0		0		0		0		0		0		0		0		0		0		0		0
3		0		0		0		0		0		0		0		0		0		0		0		0
4		0	NE	8	NE	8	NNE	5	NE	4	NNE	8	NE	6	E	4	E	9	SE	8	SE	1	NE	10
5	NE	10		0	NNE	16	NNW	3	NNW	5		0	SE	10	NE	5	NE	7		0		0		0
6		0		0		0		0	W	4	W	3	N	8	NW	5		0	S	3	E	12	NE	11
7	NE	17	E	7	E	13	E	8	NE	3	E	6	S	4	E	5		0	SE	9	SE	7	NE	9
8	E	8		0		0		0		0		0		0		0	SE	3	SE	4		0		0
9		0		0		0		0		0		0		0		0		0		0		0		0
10		0		0		0		0		0		0		0		0		0		0		0		0
11		0		0		0		0		0		0		0	W	3	W	1		0		0		0
12		0		0		0		0		0		0		0		0		0		0		0		0
13		0		0		0		0		0		0		0		0		0		0		0		0
14		0		0		0		0		0		0		0		0		0	NE	0		0		0
15		0		0		0		0		0	SW	3	SW	3	SE	3	SE	3	SE	2	S	5	S	5
16	SE	4	S	3	SE	2	SE	4	SE	0		0	SE	2	SE	2	SE	5	SE	4	SE	2		0
17	NW	2		0		0	SE	3		0		0		0	W	2		0		0		0		0
18		0		0		0		0		0		0		0	SSE	8	SSE	8	SSE	4	SSE	4	S	3
19	S	3	S	3		0		0	SE	3	SSE	4		0		0	SE	7	SE	3	SE	3	SE	4
20	NNW	6	E	4	E	5	E	4		0		0	W	4	W	3	W	2		0		0		0
21		0	NW	4	SE	4	SE	2	E	2		0		0		0	E	3		0		0		0
22		0		0		0		0		0		0		0		0		0		0		0		0
23	SE	3		0	SE	2	SE	3	SSE	2		0	E	3	E	3	ESE	4		0		0		0
24		0		0		0		0		0	NNE	2	SSW	2		0		0		0		0		0
25		0		0		0		0		0		0		0		0		0		0		0		0
26		0		0		0		0		0		0		0		0		0		0		0		0
27	E	3		0		0		0		0		0		0		0		0	SW	2		0		0
28		0		0		0		0		0		0	SW	2		0		0		0		0		0
29		0		0		0		0		0		0	S	3		0	SE	3		0	SE	3	E	3
30		0	E	2	E	0		0		0		0		0	SE	4	SE	4	E	2	SE	5	E	3
31		0	NW	4		0		0		0		0		0	N	5	N	6	NE	2	NE	6	NE	4
Mean		1.8		1.1		1.8		1.1		0.7		0.9		1.5		1.7		2.1		1.4		1.5		1.7

1900. June.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NE 2	N 3	0	SE 3	0	0	0	SE 1	E 0	0	0	SE 2
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	SW 4	SW 3	SW 3	SW 3	SW 2	SE 2	SE 3
5	0	0	0	0	0	0	0	0	0	S 2	SSE 2	0
6	0	S 3	SSW 3	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	N 2	0	0	0
8	0	0	0	0	0	NNE 3	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	SE 4	SE 2	0	0	0
13	0	0	0	0	0	0	NNW 2	SE 2	SSE 4	0	0	S 3
14	0	0	S 3	S 3	0	0	0	SE 3	SE 3	0	SE 0	0
15	0	0	0	ESE 6	0	S 4	SE 3	S 5	SSE 9	N 4	SE 4	SE 5
16	SE 4	SE 7	SE 3	S 4	0	S 5	SE 4	0	0	0	SE 4	S 4
17	0	0	NW 3	0	0	0	NW 4	NW 5	N 5	NW 7	N 4	1
18	NW 6	N 4	N 4	NE 3	NE 3	E 3	0	0	0	SW 3	NNE 5	0
19	S 0	0	0	0	0	0	0	SW 2	W 4	N 5	W 3	W 2
20	0	0	0	SE 3	S 3	S 3	S 3	S 3	0	0	S 3	0
21	0	0	SE 4	SE 2	0	0	0	E 4	E 2	0	0	0
22	0	0	0	N 2	0	0	SE 3	SE 4	0	0	0	0
23	0	NE 6	0	0	N 7	N 3	N 5	E 4	SE 2	N 3	0	0
24	0	0	NW 3	0	S 5	0	SE 3	SE 4	SE 3	SE 0	0	0
25	0	0	0	E 4	N 4	0	0	E 0	E 3	N 6	N 4	NE 5
26	0	0	0	0	0	0	0	0	0	N 3	SW 5	SW 4
27	0	0	0	0	N 3	N 0	0	0	0	0	0	0
28	0	S 5	0	0	0	S 0	0	0	0	0	0	0
29	0	0	0	0	0	0	E 0	E 0	0	E 0	0	0
30	0	0	0	0	0	0	SE 7	SE 7	SE 3	0	0	NE 2
Mean	0.4	0.9	0.8	1.0	0.8	0.8	1.2	1.7	1.5	1.2	1.2	1.0

1900. July.

Havnefjord. $\varphi = 76° 29' N.$ $\lambda = 84° 4' W.$

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	NE 6	0	0	0
2	0	0	0	0	0	0	0	N 2	0	0	E 2	E 2
3	E 2	NE 2	0	0	0	0	SE 4	SE 4	SE 4	SE 5	NW 2	0
4	0	0	0	0	0	0	SE 3	SE 5	SE 2	0	0	0
5	0	0	0	NW 2	SE 3	SE 3		SE 6	SE 3		SE 5	SE 6
6	SE 5	SE 5	SE 5	SE 3	SE 3		S 3	SE 5	SE 2	SE 2	0	SE 2
7	0	0	0	NW 2	0	S 3	SW 2	SE 5	SE 3	SE 4	SE 4	0
8	0	0	0	0	0	N 3	N 3	NW 3	NW 2	S 4	S 2	0
9	0	0	0	0	0	0	0	0	0	0	SE 5	SE 4
10	SE 9	SSE 5	S 5	SE 3	SE 4	SE 3	0	0	0	0	0	0
11	E 2	0	SE 3	SSE 5	SE 3	SE 4	SE 4	SE 4	SE 4	SE 3	0	0
12	0	0	SE 3	SE 4	SE 3	0	0	0	0	0	0	NE 3
13	0	NW 3	NW 2	0	0	0	S 4	S 2	SE 4	SE 4	0	NW 2
14	N 3	N 2	SE 2	SE 5	0	SE 3	0	SE 4	SE 3	SE 4	0	0
15	0	0	0	0	0	0	0	NW 3	E 3	SE 3	0	0
16	SE 2	SE 7	SE 6	SE 2	0	0	0	SE 4	SE 2	SE 2	SE 6	0
17	S 4	0	0	N 0	0	SE 6	0	SE 6	0	NNW 5	W 6	SE 7
18	SE 4	SE 6	SE 4	SE 8	S 4	0	SE 3	SE 11	SE 6	SE 0	0	S 4
19	0	SE 2	S 6	NNW 1	E 3	SE 10	SE 5	E 5	ESE 4	SE 4	SE 2	SE 2
20	SE 1	0	0	0	0	0	0	0	N 3	N 2	0	0
21	0	0	0	N 3	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	N 2	0	0	N 0	0
25	0	0	0	0	E 0	0	SE 5	SE 6	SE 6	SSE 6	0	0
26	0	0	0	0	0	0	S 7	S 3	S 0	S 0	S 7	0
27	0	0	0	0	0	0	0	0	SW 2	0	0	0
28	0	0	0	0	0	S 6	S 5	SE 6	S 6	SE 5	SE 2	0
29	0	0	0	SE 2	0	SW 5	N 11	S 4	S 0	S 16	S 7	SE 5
30	SE 5	W 4	E 0	W 3	0	0	0	0	0	0	W 3	NW 3
31	0	0	0	0	0	0	0	SE 2	0	0	0	0
Mean	1.2	1.2	1.2	1.4	0.7	1.5	1.9	3.0	2.1	2.2	1.7	1.3

1900. August.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	NW 2	0	0	0	0	0	0	E 4	SE 4
2	NW 3	SE 3	SE 4	S 1	N 3	N 3	0	W 8	W 3	0	0	0
3	NNE 0	0	0	0	0	S 3	S 3	S 3	S 4	S 3	S 3	E 3
4	0	0	0	0	S 5	S 6	SE 6	SE 6	0	SSW 4	NNW 2	0
5	NNE 3	NNE 8	NNE 7	NNE 6	N 2	N 7	N 6	N 4	N 3	NE 8	ENE 7	6
6	N 5	0	E 6	E 2	SE 6	SSE 5	S 6	S 3	SE 5	0	0	0
7	0	0	0	0	0	0	W 2	0	0	0	N 6	N 7
8	0	S 9	S 5	0	0	SE 4	S 5	SSW 3	N 3	N 0	0	0
9	0	0	0	0	0	*0*	*0*	0	*0*	0	*3*	6
Mean	1.2	2.2	2.5	1.2	1.8	3.1	3.1	3.0	2.0	1.7	2.8	2.9

1900. September.

Gaasefjord. $\varphi = 76° 49' N.$ $\lambda = 88° 40' W.$

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
18	N 6	N 4	N 5	N 3	NE 4	NE 2	NE 4	NE 4	NE 4	E 5	E 6	E 5
19	E 7	E 4	E 5	N 5	2	NW 11	N 9	NW 8	W 8	W 7	W 7	W 4
20	E 2	ENE 2	NW 2	NE 1		W 5	W 6		NW 3	NW 4	NW 4	N 4
21	N 4	N 7	NE 7	N 5	NNW 4	N 3	N 5	N 4	N 4	N 6	N 5	N 4
22	N 4	N 5	NW 7	NW 6	NW 5	N 4	N 3	N 4	N 6	N 5	N 5	N 2
23	N 8	N 7	N 7	N 8	N 3	N 4	N 5	E 3	NE 6	N 6	N 6	N 7
24	N 9	N 5	N 6	NNE 7	NNE 7	N 8	N 13	N 10	N 6	N 4	N 4	NNE 7
25	NNE 5	NNE 6	7	N 5	N 7	N 5	N 5	N 5	N 5	N 5	WNW 5	WNW 8
26	NW 5	N 7	N 9	NNW 10	N 4	N 4	N 6	N 6	NNW 7	N 7	NW 7	N 9
27	N 8	N 8	N 10	N 9	N 9	N 11	N 11	N 6	N 8	N 5	N 8	N 7
28	N 5	N 2	N 3	NE 4	NE 2	S 2	SW 2	N 2	0	0	0	0
29	NE 0	0	N 5	N 2	N 4	N 5	N 4	SW 1	0	N 0	0	
30	N 3	S 2	0	N 0	ESE 0	S 2	N 0	NE 3	N 4	N 6	NNE 3	NE 4
Mean	5.1	4.5	5.6	5.0	4.3	5.1	5.6	4.7	4.7	4.6	4.6	4.7

1900. October.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NE 2	0	NE 0	0	NE 2	NE 3	0	E 2	E 2	0	0	0
2	N 0	0	NE 3	0	E 2	0	0	0	0	0	0	N 2
3	N 2	N 2	N 0	0	0	NNE 0	N 5	N 7	N 5	N 4	N 4	N 5
4		N 5	N 3	NE 4	NNE 4	N 3	N 5	N 4	N 4	NNE 2	N 5	N 6
5	N 4	N 5	N 6	N 5	N 5	N 4	N 3	N 2	E 3	0	0	0
6	0	0	0	0	NE 1	NE 2	NE 3	0	0	0	NE 2	NE 3
7	NE 3	N 4	0	0	0	0	0	N 2	0	N 4	N 4	N 6
8	NW 5	NNW 5	NW 7	NW 10	NW 11	NW 18	NW 18	NW 15	NW 9	NW 8	NW 7	NW 6
9	N 9	N 6	N 8	NNE 7	NNE 6	NNE 5	NNE 4	NNE 4	NNE 4	NNE 2	NNE 3	NNE 3
10	0	0	NE 3	NNE 3	E 2	NNE 0	NNE 0	0	0	0	0	SE 6
11	SE 6	SE 4	SE 2	NNE 2	0	0	0	0	0	SW 3	SW 2	SE 5
12	SE 5	ESE 6		ENE 0	0	0	0	0	N 4	NNE 4	0	NNE 6
13	NNE 7	N 12	N 8	NNE 8	N 5	NE 6	NE 4	ENE 3	NE 0	NE 0	N 5	NE 1
14	W 2	NE 0	0	E 2	E 2	E 0	NE 2	0	0	SW 2	S 3	0
15	0	SW 3	0	S 0	0	S 2	S 3	S 2	0	N 0	E 0	NE 2
16	E 1	NE 3	N 2	NE 3	N 4	NE 2	NE 2		NE 3	NE 3	NE 5	NE 5
17	NW 3	N 5	NE 3	N 4	N 4	NNE 4	N 2	N 2	N 1	N 3	NNE 4	N 2
18	N 3	0	N 4	NE 2	NE 4	NNE 4	NNE 4	NNE 4	NNE 6	NE 7	0	0
19	SSW 2	SW 3	SSW 7	SSW 11	SSW 11	SSW 11	SSW 12	SSW 13	SSW 12	SSW 12	SSE 14	SSW 9
20	SE 7	S 8	SE 14	SE 10	S 13	SSE 12	SSE 16	SSE 16	SSE 20	SSE 18	SSE 16	SSE 18
21	SSE 19	SSE 21	SSE 20	SSE 19	SSE 18	SE 18	SE 18	SSE 16	SSE 13	SSE 9	SW 6	NNE 8
22	NNE 8	NNE 5	NNE 7	NNE 10	NNE 9	NNE 10	NNE 11	NNE 4	NNE 5	SW 2	0	NE 3
23	NE 4	E 3	SW 4	0	N 11	13	N 16	W 4	0	0	SSW 7	SSW 9
24	SE 17	SE 15	SE 13	E 9	S 3	SW 6	SW 8	SW 7	SW 9	SW 5	SW 10	SW 11
25	SW 11	SW 8	SE 10	SW 3	S 4	S 7	0	0	S 0	N 0	0	SE 2
26	ESE 9	SSE 11	SSE 11	SSE 13	S 14	S 11	SSW 9	SSW 6	SSW 4	SSW 4	SW	SW 0
27	SW 0	0	0	0	NE 4	NE 3	NNE 4	NNE 2	NNE 3	NE 7	NE 4	NE 5
28	NE 4	N 4	N 5	N 5	N 4	N 4	N 3	N 4		N 3	0	NE 4
29	NE 2	0	0	SSW 9	S 8	SSE 9	SSE 11	SSE 8	S 3	SE 11	ESE 17	ESE 14
30	ESE 13	ESE 13	0	ESE 3	S 3	NW 6	N 6	N 5	N 5	N 4	N 5	NNE 6
31	NNE 7	N 7	N 7	0	N 6	E 4	NE 5	E 3	E 3	N 3	N 3	N 4
Mean	5.0	5.1	4.7	4.6	5.2	5.4	5.6	4.4	3.8	3.9	4.1	4.9

1900. November.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	N 3	N 2	0	0	0	0	0	W 3	N 3	N 3	NE 2	0
2	N 3	0	0	N 2	N 2	N 0	3	N 3	N 0	N 2	S 4	0
3	S 3	W 5	WSW 6	SSW 6	SSW 6	SSW 8	SSW 7	SSW 3	S 11	S 11	S 12	SSW 8
4	SSW 10	SSW 10	SSW 10	S 11	S 11	S 10	SW 8	SSW 11	S 11	SSW 11	S 10	S 11
5	S 10	SW 14	SW 6	SSW 5	SSW 4	SSW 4	SSW 4	SSW 3	0	N 5	N 8	NW 5
6	NW 8	NW 11	NW 6	N 3	N 5	N 6	N 4	NNE 5	N 4	NNE 4	NNE 4	NNE 4
7	NNE 4	N 5	N 7	NNE 6	NNE 6	N 6	N 8	N 7	NNE 6	NNE 7	NNE 6	NNE 6
8	NNE	NNE 8	NNE 7	NNE 10	NNE 7	NE 7	NE 8	NE 8	NE 9	NE 7	NE 7	NE 7
9	NE 5	N 10	N 9	NNE 7	NNE 7	N 8	N 8	NNE 10	NNE 11	NNE 11	NNE 7	N 9
10	NW 10	NW 10	NNW 9	NNW 11	NNW 13	NNW 9	N 15	N 11	N 6	N 13	N 13	N 12
11	N 12	N 8	N 6	N 8	N 9	N 7	N 4	N 4	N 2	N 0	0	S 0
12	0	0	S 3	0	SSW 4	S 5	SW 6	SW 5	SW 5	SW 5	SW 6	SW 3
13	SW 3	S 5	S 3	SW 4	0	NE 3	NE 2	0	NE 5	NE 8	NNE 7	NE 9
14	NE 8	NE 10	NNE 12	N 11	N 9	NW 7	N 8	N 11	N 11	NW 11	NW 7	N 8
15	NE 12	N 12	NE 15	N 16	NNE 14	NNE 11	NNE 9	N 9	N 6	N 9	N 7	N 8
16	N 5	N 7	0	N 3	N 9	N 12	N 8	N 10	N 8	N 10	N 9	N 6
17	N 6	N 7	NE 4	N 3	N 10	N 10	N 10	N 9	N 9	N 10	N 13	N 12
18	N 6	N 16	N 13	N 16	N 14	N 14	N 14	N 9	N 7	N 7	N 8	N 8
19	NNE 5	NE 4	NE 8	NNE 11	NNE 12	NNE 10	NNE 9	NNE 6	NNE 6	NNE 4	NE 4	NNE 4
20	0	N 3	0	N 3	0	NE 3	0	0	0	0	NNE 10	NE 4
21	NNE 6	NNE 9	NNE 8	NNE 10	NNE 12	NNE 10	NNE 13	NNE 6	NNE 10	NNE 9	NNE 8	N 4
22	0	0	S 2	S 11	S 12	S 14	S 8	S 3	S 7	ESE 8	SE 7	SSE 6
23	SSE 5	N 2	N 2	NE 0	0	NE 0	NE 6	NE 3	NE 5	NE 3	NE 5	NE 6
24	NE 3	NE 2	NE 2	NE 4	N 5	NNE 4	0	N 4	0	0	0	NNE 2
25	0	N 2	0	0	S 2	0	SW 2	0	0	0	N 3	N 3
26	N 5	NE 4	N 3	N 3	N 13	N 11	N 12	N 12	N 13	N 12	N 12	N 10
27	N 10	N 8	N 6	N 5	N 7	N 0	N 0	S 4	S 0	S 4	SSW 4	SSW 4
28	SSW 3	0	N 2	N 0	0	N 0	SSE 3	0	0	NE 6	SW 3	NE 4
29	NE 3	SW 3	SSW 7	SW 9	S 5	SE 6	SE 9	S 4	S 5	S 6	S 5	SE 7
30	S 9	0	0	S 9	SW 9	S 8	N 9	N 9	N 6	N 4	N 2	N 4
Mean	5.2	5.9	5.0	6.2	6.9	6.2	6.6	5.5	5.5	6.3	6.2	5.8

1900. December.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	N 5	N 8	NE 5	NE 3	NE 3	NNE 4	0	0	0	0	0	0
2	0		SW 3	NE 0	S 8	ESE 12	ESE 5	E 3	E 3	E 5	SSE 4	SSE 2
3	S 3	0	6	N 4	NW 6	0	N 3	0	N 8	N 0	N 3	N 0
4	0	N 2	N 2	N 0	N 0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	N 0	N 0	0	NE 0	NNE 8	NNW 8	N 8	N 9	W 4
7	N 11	NE 11	N 5	N 8	N 5	N 4	N 3	N 8	NNE 4	N 6	N 4	N 6
8	N 9	0	N 3	N 4	NE 3	NE 2	0	N 3	0	N 2	N 7	N 12
9	N 9	NNW 9	NNW 5	N 7	N 3	N 4	N 3	N 2	N 6	N 8	0	NE 4
10	NE 4	0	0	NE 4	SW 0	0	0	SW 0	0	SW 3	SW 2	N 2
11	0	NW 2	NW 2	0	0	0	0	0	N 3	0	N 3	W 3
12	NW 3	0	0	0	SSW 3	0	0	SSW 2	0	N 0	0	0
13	0	0	N 4	N 4	N 3	N 5	N 4	NNE 5	N 6	N 5	N 4	N 2
14	N 2	0	0	0	0	0	S 4	S 2	S 4	S 6	S 7	S 9
15	S 8	S 7	S 8	SE 8	SE 7	S 8	S 8	S 10	S 6	S 5	S 10	S 8
16	S 7	W 7	W 9	WNW 8	0	WNW 5	NW 7	N 4	N 6	N 6	N 3	N 5
17	N 9	N 4	0	N 3	N 5	N 4	N 4	N 0	W 8	0	N 8	N 5
18	N 2	N 2	N 3	N 3	N 4	N 5	N 5	N 6	N 10	N 10	N 9	N 8
19	N 9	N 10	N 11	N 11	N 10	N 8	N 7	N 6	N 5	N 5	N 6	N 7
20	N 10	N 9	N 9	N 11	N 8	N 13	N 12	N 11	N 13	N 11	N 6	N 5
21	N 6	N 6	N 6	N 8	N 3	N 5	N 11	N 4	N 13	N 8	N 7	N 6
22	N 4	N 13	N 6	N 6	N	N	0	N	N	N 4	N 6	N 7
23	N 7	N 8	N 9	N 11	N 6	N 10	N 12	N 9	N 8	N 12	N 9	N 10
24	N 9	N 11	N 12	N 14	N 13	N 13	N 7	N 8	N 8	N 9	N 9	N 9
25	N 10	N 10	N 10	N 14	N 12	N 11	N 11	N 10	N 10	N 7	N 4	N 9
26	W 8	N 7	N 7	N 6	N 0	S 3	S 0	ESE 0	S 3	S 3	S 0	SSW 2
27	SSW 0	SSW 0	SSW 0	0	0	0	0	0	0	0	0	0
28	0	SW 2	N 4	N 2	N 0	0	NE 6	N 3	NNE 3	NNE 3	0	0
29	0	0	N 2	N 9	N 7	N 4	N 8	N 6	NNW 14	NNW 12	NNW 13	NNW 9
30	NNW 10	NNW 9	N 10	N 10	N 6	N 6	N 10	N 8	N 8	N 4	N 5	N 7
31	N 6	N 8	N 8	N 13	N 10	N 6	N 6	N 8	N 10	N 7	N 6	N 7
Mean	4.9	4.7	4.8	5.5	4.0	4.3	4.4	4.1	5.4	4.8	4.6	4.8

1901. January.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 8	N 7	N 9	N 9	N 10	N 11	N 11	N 15	N 14	N 16	N 18	N 11
2	N 12	N 13	N 14	N 15	N 10	N 17	N 12	N 8	N 12	N 12	N 11	N 13
3	N 13	N 13	N 14	N 8	N 8	N 4	N 4	NE 4	NE 6	NE 0	NNE 3	0
4	N 3	N 0	N 0	N 3	N 0	N 2	0	NNW 4	NNW 9	N 4	N 5	NW 6
5	NW 5	NNW 5	N 6	NW 8	NW 8	NW 6	N 5	N 8	N 7	N 3	N 3	0
6	0	0	0	0	N 5	N 0	N 5	N 6	N 6	N 7	N 7	N 6
7	N 6	N 4	N 2	N 0	NE 5	S 0	S 3	SW 4	S 4	N 0	0	0
8	N 0	N 2	N 2	0	N 3	0	N 0	0	0	0	0	0
9	0	N 0	N 0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	N 8	N 7	N 7	N 9	N 9	NNE 8	N 10
11	N 10	N 7	N 8	N 9	NNE 7	NNE 7	NNE 6	NNE 3	NNE 7	NNE 7	NNE 3	NNE 7
12	NNE 8	NNE 9	NNE 10	N 13	N 9	N 9	N 7	N 8	N 7	N 7	N 7	N 8
13	N 4	N 6	N 4	N 12	N 8	N 11	N 10	N 10	N 10	N 10	N 8	N 11
14	N 9	N 9	N 10	N 10	N 5	N 14	N 15	N 17	N 17	N 11	N 6	N 12
15	N 13	N 18	N 14	N 12	N 9	NNE 10	NNE 9	NNE 10	NNE 10	NNE 10	NNE 10	NNE 9
16	N 10	N 11	N 10	N 17	N 10	N 15	N 8	N 6	N 7	N 15	N 11	N 13
17	N 14	N 8	N 9	N 12	N 9	N 8	N 14	N 9	N 7	N 3	N 5	NNE 5
18	NNE 6	NNE 6	NNE 5	N 7	N 6	N 8	N 7	N 10	N 13	N 11	N 14	N 13
19	N 11	N 17	N 16	N 7	N 14	N 14	N 13	N 15	N 10	N 9	N 6	N 6
20	N 5	N 5	N 4	N 5	N 3	N 4	N 3	N 0	N 4	N 6	N 4	N 6
21	N 5	N 6	N 6	N 5	N 6	N 7	N 6	N 9	N 10	N 9	N 9	N 9
22	N 10	N 7	N 8	N 10	N 9	N 9	N 10	N 11	N 13	N 12	N 10	N 12
23	N 7	N 11	N 6	N 11	N 10	N 5	N 4	N 0	N 0	N 2	0	N 2
24	N 2	0	0	0	0	S 0	S 2	S 3	S 3	S 2	S 6	S 8
25	S 10	S 12	S 12	S 11	S 9	S 11	S 7	S 8	S 7	S 6	S 4	S 5
26	S 3	S 3	S 3	S 0	S 0	0	0	N 0	S 0	0	0	0
27	S 5	S 6	S 6	S 13	S 7	S 8	S 9	S 12	S 4	0	0	S 8
28	SSW 6	0	N 3	0	N 0	0	0	0	0	0	0	0
29	0	0	E 4	0	N 11	N 11	N 15	N 12	N 12	N 10	N 7	N 12
30	N 8	N 17	N 10	N 13	N 15	N 12	NW 15	NNW 17	N 14	N 13	NNE 13	N 16
31	N 13	N 13	N 9	N 11	N 9	NNE 5	NNE 3	NNE 3	NE 4	0	0	N 7
Mean	6.6	6.9	6.6	7.1	6.6	7.0	6.8	7.7	7.3	6.3	5.7	6.9

1901. February.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	N 16	N 16	N 16	N 13	N 14	N 9	N 9	N 10	N 13	N 9	N 11
2	N 9	N 9	N 5	N 5	N 4	N 5	N 8	N 15	N 12	N 8	NNW 5	N 4
3	N 4	N 5	N 6	NNW 9	NNW 5	N 7	N 9	N 4	N 9	N 6	0	N 5
4	N 5	N 14	N 9	0	N 11	N 5	ENE 5	N 12	N 12	N 10	N 11	N 13
5	N 17	N 15	N 18	N 16	N 12	N 15	N 18	N 5	N 10	N 13	N 14	N 17
6	N 18	N 11	N 19	N 17	N 16	N 11	N 11	N 13	N 14	0	0	N 13
7	N 10	N 6	N 7	N 0	0	N 0	N 3	0	SW 0	0	N 0	0
8	0	0	0	N 0	N 2	0	N 0	0	0	0	0	0
9	0	0	0	0	N 0	N 5	N 8	N 6	N 0	N 0	SW 3	S 2
10	0	NE 4	0	0	N 6	0	NE 3	NE 0	NE 4	0	S 5	S 9
11	S 12	S 5	S 8	S 10	S 5	S 7	S 5	S 4	S 5	S 3	SW 4	S 3
12	0	W 0	W 0	S 0	S 0	N 2	0	N 2	0	N 0	0	0
13	SSW 3	SSW 5	SSW 5	SW 6	SW 5	SW 8	SW 9	SW 12	SW 9	S 16	S 11	SW 15
14	S 17	S 16	S 9	SE 9	SE 13	SE 14	SE 19	SE 22	SE 25	SE 22	SE 20	SE 17
15	SE 14	SE 10	SE 8	N 9	N 7	NE 5	NE 7	NNE 3	N 4	NNE 3	N 3	0
16	N 2	0	0	0	0	0	0	0	0	0	0	0
17	N 8	N 10	N 9	N 11	N 8	N 7	N 6	N 6	N 7	N 7	N 6	N 4
18	NNE 5	N 0	E 0	S 7	S 6	S 10	S 12	S 17	S 17	S 13	S 8	S 7
19	S 5	0	0	0	N 6	N 6	N 12	N 10	N 8	N 7	0	NE 6
20	NE 6	NE 4	NE 8	S 3	S 3	S 4	S 3	S 5	S 5	S 8	S 7	SSW 6
21	SSW 8	SSW 8	SSW 3	S 0	S 0	N 0	N 6	N 6	N 10	N 8	N 10	N 11
22	N 9	N 7	N 5	N 9	NNW 8	NW 12	NNW 12	NNW 16	N 8	N 10	NNW 12	N 12
23	0	N 16	N 20	NW 16	NW 6	NW 11	0	N 2	SW 4	0	0	0
24	0	N 3	SW 2	0	0	0	0	0	0	S 3	0	0
25	N 2	NE 3	NE 2	SW 3	S 0	NW 9	W 7	NW 5	NW 7	NW 7	N 5	N 3
26	N 6	NNW 19	0	N 0	0	N 0	NW 6	0	0	N 0	0	N 3
27	0	0	0	N 3	N 0	NE 1	NE 3	0	ENE 2	0	0	0
28	0	0	0	0	S 0	S 0	S 0	S 0	S 0	S 0	0	0
Mean	6.0	6.6	5.7	5.3	4.8	5.6	6.4	6.2	6.5	5.6	4.8	5.8

1901. March.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	N 3	0	N 6	N 9	N 7	N 14	N 15	N 13	N 12	N 9
2	N 10	N 15	N 11	N 13	N 12	N 13	N 14	NNE 15	N 9	N 15	N 11	N 12
3	N 10	N 11	N 13	N 21	NNE 12	NNW 14	NNW 14	N 14	NNE 15	NNE 13	NNE 10	NNE 11
4	NNE 13	N 7	N 8	N 8	N 7	N 4	N 10	N 8	N 7	N 8	N 8	N 4
5	N 0	N 9	N 9	N 19	N 17	N 14	NW 10	NW 8	NW 14	NW 16	N 14	N 14
6	N 13	N 12	N 11	N 9	N 10	N 10	N 4	N 7	0	0	0	N 5
7	0	0	NNE 6	N 14	N 10	N 9	N 10	N 9	N 7	N 10	N 12	N 10
8	N 13	N 10	N 6	N 8	N 5	N 6	N 4	N 6	N 7	N 6	N 5	N 5
9	N 5	N 6	N 7	N 6	N 6	N 6	N 7	N 8	N 9	N 13	N 11	N 12
10	N 13	N 14	N 15	N 15	N 14	NNE 15	N 9	N 11	N 16	N 16	N 11	N 10
11	N 10	N 18	N 15	N 14	N 16	NE 16	NNE 12	NNE 11	NNE 10	NNE 8	NNE 7	N 3
12	N 2	N 2	0	0	0	0	S 0	NE 2	0	SW 3	0	SW 2
13	0	0	0	S 2	S 2	S 3	0	0	N 1	0	W 3	W 2
14	N 3	N 10	N 3	N 5	N 7	N 4	N 10	N 11	N 8	N 4	N 3	N 7
15	N 0	E 3	0	N 2	0	0	N 2	0	0	0	N 2	N 2
16	N 2	N 0	0	0	0	SW 2	0	0	0	0	0	0
17	0	0	0	0	N 0	N 3	N 3	N 6	0	N 1	N 9	N 6
18	N 5	N 7	N 7	N 7	N 5	N 3	N 8	N 9	N 8	N 6	N 3	N 7
19	NE 2	NE 5	N 5	N 0	0	0	N 0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	N 2	0	N 3	0
23	0	0	N 5	N 5	N 5	NE 7	NE 5	NE 6	N 2	N 3	N 7	N 7
24	N 6	N 11	N 7	N 6	N 7	N 7	N 8	N 9	N 7	N 8	N 7	N 7
25	0	N 3	N 0	SW 2	0	0	0	0	0	0	SE 4	S 4
26	NE 2	S 1	SW 2	N 8	N 9	N 9	N 10	N 10	N 9	N 11	N 9	N 12
27	N 13	N 7	N 9	N 9	N 9	N 10	N 8	N 9	N 9	N 6	N 3	NE 5
28	SE 5	0	NNE 5	N 5	NW 2	0	0	0	S 4	0	0	0
29	0	0	E 11	SE 9	SE 12	SE 13	SE 11	SE 11	SE 11	SE 11	S 7	S 6
30	S 5	SW 6	S 5	S 6	SSW 7	SSW 6	SSW 5	0	S 4	S 4	S 3	NW 2
31	NW 2	NW 3	N 3	N 5	N 6	N 5	0	N 4	N 5	N 4	N 8	N 6
Mean	4.3	5.2	5.4	6.4	6.0	6.1	5.5	6.1	5.8	5.8	5.5	5.5

1901. April.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 4	0	0	NE 0	N 0	0	N 0	0	0	0	N 0	0
2	0	0	0	0	0	0	0	0	N 3	N 0	0	0
3	0	0	0	N 0	0	N 3	N 3	N 4	0	NE 4	N 3	N 3
4	N 5	N 3	NE 3	N 0	N 2	N 0	0	N 4	N 4	N 3	0	0
5	0	0	0	0	N 0	SW 0	N 3	0	0	ENE 4	S 0	SW 7
6	S 6	E 5	S 2	N 0	0	0	0	0	0	0	SE 13	SE 6
7	SE 7	SE 10	SE 10	SE 9	S 6	S 6	S 6	S 6	S 5	S 4	S 5	0
8	S 0	0	0	0	S 0	S 2	0	0	NNE 4	NE 5	NE 4	E 6
9	NE 4	NE 5	NE 5	N 8	N 8	N 7	N 8	N 9	N 9	N 6	N 8	NE 8
10	N 9	NE 6	NE 5	N 3	S 0	S 0	SW 3	S 7	S 7	S 9	S 4	S 9
11	S 8	S 3	W 8	NNW 5	NNW 9	WNW 7	WNW 11	NNW 6	SW 0	0	N 5	N 2
12	N 2	N 3	NNE 5	N 3	N 8	N 10	NE 10	NE 11	NE 12	NE 13	NE 10	NE 11
13	N 12	N 7	N 7	N 10	N 11	NNE 11	NNE 9	N 7	N 6	N 6	N 7	N 12
14	N 6	N 4	N 8	N 11	N 7	N 5	N 5	N 8	NE 5	NE 6	NNE 6	NNE 8
15	NNE 7	NE 8	NE 7	N 10	N 7	N 6	NNE 10	N 8	NE 8	N 8	N 5	NE 4
16	N 4	N 5	N 4	N 6	N 3	N 3	0	S 5	S 8	S 8	S 7	S 9
17	SW 9	S 7	S 6	S 7	S 7	S 8	S 7	S 6	S 7	S 7	S 5	S 5
18	S 4	S 4	S 4	S 6	S 7	S 7	S 8	S 7	S 8	S 7	S 7	S 5
19	S 13	S 11	SE 12	SSE 5	S 6	S 8	S 7	S 5	S 3	S 4	SW 5	S 3
20	N 2	0	0	0	0	0	0	N 5	0	0	N 6	N 6
21	N 8	N 8	N 8	N 6	N 9	N 9	N 9	N 9	N 4	N 6	N 6	N 7
22	N 6	NE 7	NE 9	N 7	N 7	N 7	N 6	N 7	N 7	N 11	N 7	N 7
23	NE 12	N 6	N 5	N 10	N 7	N 8	NE 8	N 8	N 9	N 4	N 3	N 5
24	N 4	0	N 3	N 3	N 3	N 5	N 5	N 4	N 4	N 5	NNE 6	NE 4
25	NE 5	N 5	N 9	NNE 8	N 7	NNE 11	N 7	N 10	N 9	N 8	N 7	N 4
26	0	0	0	S 0	S 0	S 9	S 7	S 7	S 7	S 3	0	0
27	N 0	0	0	0	0	N 2	0	0	0	0	0	0
28	0	0	0	0	N 0	0	0	NE 5	0	N 3	0	0
29	S 2	0	N 3	N 5	N 4	N 5	N 6	N 6	N 5	N 4	N 5	N 5
30	N 5	N 6	N 5	N 8	N 8	N 7	N 6	N 6	0	N 8	N 6	N 6
Mean	4·8	3·8	4·3	4·3	4·2	4·9	4·8	5·3	4·5	4·8	4·7	4·7

1901. May.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NNW 7	N 16	N 9	N 11	N 11	N 9	NNE 13	N 9	N 11	N 5	N 7	N 7
2	N 3	NNE 5	NE 5	N 5	N 4	N 5	N 7	N 10	N 10	N 10	N 9	N 9
3	N 13	N 12	N 11	N 15	N 10	N 10	N 6	N 5	N 3	N 0	0	0
4	N 2	0	0	0	W 0	S 0	0	S 3	0	NE 3	SW 3	ENE 9
5	NE 6	0	NE 6	NNE 6	N 7	N 9	N 9	N 6	N 7	N 5	NNE 5	NNE 4
6	NNE 6	N 6	N 7	N 11	N 8	N 7	N 6	N 8	N 3	N 6	N 4	N 0
7	0	N 3	0	WNW 5	NW 6	NW 5	NW 5	NNW 4	NW 4	NW 7	NW 8	NW 3
8	NW 5	WSW 6	W 12	NW 10	NW 8	NW 4	S 0	S 3	0	S 2	0	0
9	N 5	N 2	N 2	N 0	0	S 7	S 6	SW 5	S 5	S 4	S 5	S 3
10	S 7	S 7	S 3	S 5	S 7	S 7	S 9	S 8	S 7	S 6	S 7	S 8
11	S 7	S 11	S 8	S 8	S 8	S 6	S 5	SW 4	S 5	S 4	S 5	S 4
12	S 2	S 2	S 2	S 6	S 5	S 6	0	N 6	NE 5	N 3	N 3	0
13	SE 0	0	0	S 3	S 6	S 8	S 9	S 8	SE 7	SE 10	SE 9	SE 12
14	SE 10	SE 17	SE 14	SE 16	SE 11	SE 11	SE 12	SE 13	SE 10	ESE 15	SSE 16	SE 13
15	SE 17	SE 15	SE 8	S 6	S 5	N 8	N 8	N 7	N 6	N 5	N 5	N 2
16	0	N 4	N 4	0	N 3	N 3	N 3	NNE 4	N 4	N 5	N 5	N 5
17	N 4	N 6	N 7	N 9	N 6	N 3	N 3	0	0	S 3	SW 3	SW 5
18	SW 7	SSW 6	S 8	0	S 10	S 12	S 6	SE 12	S 6	S 6	S 3	0
19	S 3	S 3	0	N 2	N 2	N 4	N 6	N 5	N 4	S 0	S 3	N 8
20	N 6	N 9	N 8	N 8	N 8	N 7	N 8	N 7	N 7	NW 5	NNW 4	N 3
21	N 5	N 4	N 4	N 5	N 2	0	SW 5	SW 8	SW 6	SW 6	SW 4	S 5
22	S 6	SW 12	S 14	S 17	S 14	S 10	S 18	S 13	S 8	S 6	S 11	SW 5
23	SW 3	SW 4	SW 6	SW 8	SSW 10	SSW 13	S 9	S 11	S 7	S 6	S 12	S 10
24	S 9	S 5	S 4	0	N 7	N 8	N 5	N 5	N 6	NW 6	W 5	N 5
25	NNE 5	NE 4	N 3	N 2	N 0	0	SW 3	S 2	SW 3	S 8	SE 7	SE 8
26	0	S 8	S 5	S 6	S 5	S 3	S 3	S 6	S 4	S 4	S 3	S 0
27	S 3	S 2	S 3	S 4	S 4	S 3	0	S 3	S 2	S 3	SW 3	0
28	W 11	SW 7	NW 9	NW 6	N 6	N 6	NE 4	N 6	N 5	N 2	N 3	N 5
29	0	0	0	N 0	0	W 4	NW 5	N 4	N 3	N 7	NNW 3	0
30	SW 3	0	N 5	NE 2	0	N 7	N 6	N 8	N 12	N 10	N 8	N 5
31	N 7	NW 4	NW 4	N 4	N 3	N 5	N 4	N 2	N 4	NE 3	N 6	N 5
Mean	5.2	5.8	5.5	5.8	5.7	6.1	5.9	6.3	5.3	5.3	5.5	4.6

1901. June.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	NE 4	N 7	N 7	N 6	N 6	N 3	N 4	N 3	N 5	NE 1	N 3	W 6
2	W 5	W 10	W 5	W 2	N 2	N 5	NNE 8	NW 7	NE 7	NE 8	N 7	N 10
3	N 6	N 0	NW 11	NE 9	N 9	N 1	N 5	N 6	N 5	N 4	N 5	N 11
4	N 8	N 0	N 7	NW 3	W 8	0	0	0	N 5	NE 8	N 4	N 6
5	N 7	N 8	N 7	N 6	NE 6	NE 3	N 5	N 4	N 4	0	NNW 8	NW 9
6	N 8	W 9	0	SE 0	SW 6	NW 9	NW 13	NW 8	NW 9	NW 10	NW 11	NW 11
7	NW 8	NW 8	N 9	N 9	N 9	N 9	N 10	NNW 9	N 11	N 10	N 13	N 8
8	N 8	N 9	N 10	N 11	N 5	N 6	N 4	N 5	N 5	N 5	N 9	NNW 8
9	NNW 8	0	NNW 8	NNE 9	NNE 7	NNE 9	N 8	N 7	N 7	N 5	N 5	NW 3
10	0	N 3	WNW 5	WNW 6	N 5	N 4	N 5	N 4	N 4	0	0	E 3
11	0	0	S 0	S 0	S 0	E 0	N 0	0	SE 3	SE 10	E 6	SE 8
12	SE 6	E 8	SE 8	SE 8	SE 6	SE 7	SE 4	SE 6	SE 9	SE 8	S 11	SE 13
13	SE 12	SE 12	SE 15	SE 12	SE 16	SE 11	SE 15	SE 12	SE 12	SE 10	SE 14	SE 18
14	SE 16	SE 12	SE 15	SE 6	SE 9	SE 9	S 9	SSW 8	SW 7	SW 7	SW 2	N 4
15	NNW 4	NNW 3	NNW 3	N 4	0	N 0	S 0	0	0	N 0	S 3	SW 2
16	0	S 2	0	0	0	SW 4	SSW 5	S 6	S 3	S 4	S 3	0
17	N 4	N 2	0	N 6	0	S 3	S 3	S 5	S 4	S 4	S 4	S 7
18	S 5	S 4	S 6	S 2	S 0	0	S 2	S 3	S 0	SW 0	N 2	N 2
19	N 2	NNW 2	NE 2	N 0	SW 3	S 0	N 6	N 5	NW 4	N 4	NW 7	NW 4
20	NW 5	NW 6	NW 4	0	S 0	NW 5	NW 3	NNW 4	NNW 4	NW 4	N 3	N 6
21	N 5	N 4	N 5	N 5	N 0	SW 0	S 0	0	S 2	E 2	N 2	N 6
22	N 6	SW 7	S 5	S 3	S 0	N 5	N 6	N 5	N 5	WNW 10	NW 11	SW 6
23	WNW 8	N 6	N 3	NE 5	N 5	N 5	N 5	N 6	N 3	0	NE 4	0
24	0	N 0	SW 0	S 5	S 6	S 11	SSW 8	SSW 8	SSW 8	SSW 6	SE 9	SE 10
25	SE 6	SE 6	ESE 8	SE 7	S 6	SSW 7	SSW 9	SSW 7	SSW 6	SSW 5	SW 6	SSW 7
26	SW 4	SW 5	SW 8	SW 8	S 11	S 8	SSW 10	S 6	SSW 7	SSW 9	SSW 8	SW 9
27	SW 7	SE 6	S 6	S 4	S 9	S 8	S 9	S 6	S 6	SW 2	NE 4	0
28	NE 3	0	NE 3	NE 4	NE 5	NE 3	NE 6	NE 3	N 4	N 0	0	0
29	S 4	S 3	S 2	S 5	S 5	S 5	S 0	NW 3	N 5	N 5	NNE 6	NNE 5
30	NNE 3	0	N 5	N 7	NW 11	NW 11	N 10	N 10	N 19	N 9	N 9	N 9
Mean	5.4	5.1	5.6	5.1	5.2	5.0	5.7	5.2	5.4	5.0	6.0	6.4

1901. July.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	N 7	N 5	N 10	N 9	N 6	N 11	N 6	NW 6	N 6	NW 5	N 3	N 5
2	N 5	N 6	N 7	NW 6	N 5	NW 5	NW 5	N 4	N 4	NW 2	N 2	N 3
3	NE 4	N 2	N 4	NW 6	N 3	N 4	N 10	N 5	N 6	N 8	N 10	N 5
4	N 5	N 0	N 2	N 3	N 0	N 3	NNW 5	N 4	N 4	N 5	NNE 4	NW 6
5	N 3	N 3	N 3	N 2	NE 4	NNE 4	NE 5	NE 4	N 3	NNE 5	N 7	NW 5
6	NW 12	NW 5	N 4	NNE 4	N 8	NNE 6	NNE 9	N 5	W 5	NW 4	NW 4	NW 3
7	0	NW 5	W 6	NW 5	NW 4	NW 5	NNE 6	NNE 5	NW 4	NW 3	0	0
8	0	NW 3	N 3	N 2	NW 6	NNW 8	N 6	N 4	N 9	NW 11	NW 9	NW 18
9	NW 5	N 5	N 5	N 6	NNE 6	N 5	N 6	N 7	N 6	N 6	N 6	N 6
10	N 7	NNW 6	NW 4	N 3	N 5	N 5	N 6	N 6	N 6	N 3	N 3	0
11	NE 2	0	NE 4	N 6	N 4	N 4	N 3	N 2	N 4	N 4	N 3	N 4
12	N 2	NE 3	0	0	NE 4	W 3	N 4	NW 3	0	NNE 4	N 3	N 2
13	N 4	N 3	N 2	NE 1	SW 3	SW 3	SW 3	SW 3	SW 4	SW 4	SSW 5	SSW 5
14	SSW 3	SSW 4	SE 3	S 3	SSW 3	S 3	N 4	N 9	N 4	0	0	0
15	0	SW 3	SW 4	S 3	S 2	SW 2	0	NW 2	NW 2	NE 5	NE 4	N 4
16	N 3	N 5	N 5	N 6	N 4	N 5	NW 5	NW 5	NW 5	NW 7	NW 5	WNW 8
17	WNW 6	NW 8	WNW 8	NW 5	NW 6	NW 7	NW 9	NW 7	NW 8	N 3	NW 8	NW 7
18	NW 8	NW 8	NW 11	N 13	N 6	NNE 5	NW 4	NW 3	NW 6	NW 4	NW 3	NW 5
19	W 6	W 9	W 7	NW 2	W 4	WSW 4	0	0	0	N 5	N 4	NW 4
20	NW 5	NW 5	N 5	N 5	N 5	N 3	N 5	N 5	N 5	N 6	N 6	N 5
21	N 3	N 4	N 4	N 5	N 3	N 6	SW 2	SW 2	N 5	N 4	N 5	NW 5
22	NW 4	0	N 5	W 6	WNW 10	SW 4	S 0	SW 6	SW 6	W 5	S 4	S 5
23	SE 4	SSW 6	SSW 7	SSW 9	SSW 11	SSW 10	S 8	SW 8	SSW 9	SW 10	SW 10	SW 11
24	SW 5	SW 7	SW 16	W 8	WSW 4	WNW 10	WNW 7	N 5	N 9	N 7	N 9	NW 11
25	N 10	N 6	N 7	NW 4	NNE 9	N 5	NNW 5	W 3	N 4	N 0	NE 0	0
26	0	NNE 3	0	0	N 5	N 3	N 5	N 4	N 6	N 5	NNW 5	WNW 3
27	NW 5	NNE 2	NNE 3	NNE 3	0	NE 3	0	0	SW 2	SW 2	NW 2	NW 5
28	NW 1	0	N 4	N 4	N 3	0	N 0	N 5	N 4	N 4	N 1	N 3
29	N 1	0	0	0	N 4	N 6	N 4	N 4	N 3	N 3	NW 4	NW 3
30	NW 3	NW 6	NW 6	NW 4	N 2	NNE 4	NNW 4	NNW 4	N 5	NW 3	NW 3	N 5
31	N 4	N 4	NNE 4	NNE 3	0	0	SW 2	0	SW 2	SW 2	SW 3	S 2
Mean	4.4	4.1	4.9	4.4	4.5	4.7	4.5	4.2	4.7	4.5	4.4	4.8

1901. August.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	S 6	S 5	S 4	S 5	SW 6	SSW 4	SSW 4	S 6	S 6	SSW 4	SSW 3	SSW 2
2	SW 5	SW 3	SW 2	SW 2	SSW 4	SW 3	SSW 3	S 0	0	SE 2	SE 2	0
3	N 2	N 3	0	NNE 2	SW 2	S 3	SSW 3	SSW 3	SSW 4	SSW 5	SSW 4	SSW 6
4	SSW 6	SE 6	SSW 7	S 5	SSW 0	0	W 6	N 4	WNW 7	NW 5	S	0
5	NNW 2	SW 3	SW 4	N 2	NNW 3	NW 6	WNW 6	NW 6	W 7	NW 8	NW 7	NNE 5
6	N 6	N 3	NW 6	N 4	N 6	N 6	NW 3	NW 6	NW 8	NW 9	NW 9	N 4
7	NW 5	NW 3	NW 7	NW 5	NW 5	N 4	NW 5	N 7	NNW 7	N 3	N 3	N 5
8	N 7	N 5	N 8	NNE 7	N 9	N 11	N 6	NNE 6	NNE 7	N 5	NNE 5	NE 5
9	NE 7		N 6	NE 5	NE 6	NE 6	NE 6	NE 6	NW 8	NW 7	NNW 5	NNE 4
10	N 6	N 7	N 8	N 8	N 10	N 9	N 8	N 7	N 7	N 6	N 5	N 4
11	NE 3	N 6	0	N 0	0	S 2	0	0	0	S 0	SW 2	S 6
12	SW 5	S 5	SW 5	S 6	SW 8	SW 6	SSW 7	SW 3	N 4	N 4	NW 6	NW 6
13*	WNW 4	NW 4	NNW 5	NNW 6	NW 7	NW 6	WNW 5	0	0	0	N 6	N 5
14	0	NE 5	NNE 5	NE 7	N 6	N 0	0	N 4	N 6	N 6	N 4	N 5
15	N 3	N 4	N 4	N 4	N 4	0	0	S 2	S 1	0	SE 0	0
16	0	0	S 5	SW 4	0	NE 2	N 2	N 3	S 0	S 2	0	0
17	N 3	NNW 3	S 2	SE 4	SE 0	SE 10	SE 10	S 8	S 6	SE 8	S 6	SSW 6
18	S 7	S 4	S 4	S 5	S 4	S 3	S 5	S 6	S 4	S 4	S 0	0
19	0	0	W 5	W 5	0	NW 4	NW 3	N 2	N 4	N 4	NE 4	NNE 3
20	NE 3	NE 3	NE 4	N 4	N 4	N 3	N 4	N 4	N 4	N 3	NE 5	NE 4
21	NNE 5	NE 0	N 2	N 0	SW 0	SW 0	0	0	0	0	0	0
22		S 3	S 4	S 3	S 5	S 5	S 8	S 5	SSW 5	SSE 5	S 4	S 3
23	S 2	0	S 3	0	S 2	S 3	S 3	NW 1	0	SSE 0	0	N 2
24	NNW 3	SE 2	N 2	N 0	S 2	0	0	0	S 3	S 2	S 4	0
25	0	0	E 1	S 3	S 2	0	SE 3	0	S 2	SE 2	0	S 6
26	S 5	E 15		W 3	0	0	0	0	S 3	S 3	0	S 3
27	0	0	SE 3	SE 4	SE 1	SE 3	SE 3	SE 1	SE 4	SE 2		
28	0	NW 5	NW 7	NW 8	NW 7	NW 7	NW 6	NW 7	NW 6	NNW 4	NNW 4	NNW 5
29	N 5	N 5	N 4	N 4	N 3	N 5	N 8	NNW 6	N 6	N 7	N 9	N 7
30	N 7	N 7	N 5	N 7	N 10	NNE 4	N 4	N 5	N 5	N 5	N 4	NW 9
31	NNW 10	NE 7	NNW 7	N 5	N 3	N 7	N 4	N 4	N 3	N 5	N 2	N 3
Mean	3.8	4.7	4.2	4.1	3.8	3.9	4.0	3.6	4.1	3.9	3.3	3.5

* From the 13th August to the 5th September under way working southwards in the Gaasefjord.

1901. September.

Gaasefjord from the 6th $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 4	NW 3	N 3	NW 3	0	S 0	0	SW 0	0	S 5	SE 12	SE 16
2	SE 19	SE 18	SE 14	SE 20	E 17	SE 14	ESE 24	ESE 23	ESE 16	ESE 20	ESE 19	ESE 16
3	ESE 20	ESE 17	ESE 18	E 15	E 15	E 9	ESE 9	0	0	SSE 2	S 0	S 1
4		SW 0	0	NNW 3	NNW 4	NNW 6	NNW 6	N 5	N 5	N 5	N 7	N 6
5	NNW 5	N 4	N 4	NW 4	NW 6	N 3	NNW 6	NNW 6	NNW 7	NNW 6	NNW 7	NE 4
6	NNW 5	NNW 5	NNW 4	N 3	NNW 5	N 4	NNW 5	NNW 4	N 3	0	S 0	0
7	0	0	SE 6	SE 0	SE 3	SE 3	SSW 4	SSW 5	SSW 3	SSW 3	SSW 3	SSW 3
8	SSW 2	0	0	0	0	0	S 0	NW 3	NW 4	NW 3	NW 4	NW 6
9	NW 4	NW 4	NW 4	NW 4	NW 5	NW 4	NW 4	NW 5	NW 4	NW 4	NW 7	NW 7
10	NW 6	NW 6	NE 4	N 3	NW 7	N 5	NW 9	NW 7	NW 6	NNW 3	NNW 6	NNW 3
11	NW 3	NNW 10	NNW 7	N 10	N 10	N 10	N 10	N 12	N 7	NNW 9	NNE 7	N 7
12	N 7	0	N 3	NNE 3	E 0	N 3	N 5	N 2	NNE 3	N 2	N 2	0
13	N 3	N 4	N 5	N 9	NW 6	NW 11	NW 9	N 7	N 7	NNW 11	N 9	N 9
14	NW 8	NW 7	NW 8	NW 7	N 7	N 5	NNW 5	NW 4	NW 6	NNE 5	N 5	N 4
15	NW 6	NW 4	NW 4	NW 5	NW 4	NNW 6	NNW 4	NNW 5	NW 3	NW 5	N 8	N 3
16	N 5	NW 5	NW 4	N 3	N 4	N 4	N 4	N 6	N 9	NW 7	NW 6	N 6
17	N 8	N 6	N 7	N 5	SE 3	NW 4	NW 5	NW 6	NW 6	N 2	NW 5	0
18	NW 7	NW 8	NNW 8	NW 14	NW 8	NW 7	NW 8	NW 8	NW 4	NW 6	N 5	N 3
19	N 6	NW 7	NW 6	NW 5	NW 3	NW 6	N 4	N 4	NW 6	NW 5	N 5	N 6
20	N 6	N 5	NW 6	N 6	N 5	N 5	NNW 6	NNW 6	N 12	N 8	N 7	N 9
21	NW 16	NW 14	NW 6	N 7	N 4	N 5	N 5	N 4	N 4	NNE 3	N 3	N 0
22	S 5	N 4	E 2	NE 4	N 6	N 8	N 5	N 6	N 6	N 3	N 6	N 11
23	N 10	NW 9	NW 7	N 11	N 11	NW 8	NW 5	NW 1	NE 3	N 4	N 3	N 3
24	N 5	N 5	N 3	NW 6	NNW 5	N 4	N 5	0	0	N 2	N 3	N 5
25	N 5	N 5	N 5	NNE 5	NNW 4	NNW 5	NW 4	ENE 2	ENE 0	0	0	S 0
26	S 0	S 0	SE 0	S 0	S 3	0	0	0	SE 0	N 3	NNW 5	NNW 5
27	NNW 5	NNW 5	NW 7	NW 7	N 7	N 8	N 8	N 8	N 3	N 5	N 8	N 5
28	N 7	N 8	N 8	NNW 8	NNW 9	NNW 9	NNW 11	NNW 11	NNW 8	NW 8	NNW 6	NNW 4
29	NNW 4	NNW 5	N 6	NNW 6	NNW 3	NNW 0	N 0	N 0	NNW 4	NNW 0	0	0
30	E 0	N 0	0	0	0	0	0	0	0	0	0	0
Mean	6.0	5.6	5.3	5.9	5.5	5.2	5.7	5.0	4.6	4.6	5.3	4.7

1901. October.

Gaasefjord. $\varphi = 76° 40' N.$ $\lambda = 88° 38' W.$

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	NW 5	NW 7	N 5	N 4	N 4	N 6	N 8	N 8	N 7	N 6	S 3
2	N 4	NW 3	N 2	N 5	N 9	NNW 10	NNW 10	NNW 8	NNW 10	N 4	N 6	NNW 5
3	N 8	N 8	N 8	NW 6	NNW 7	NNW 7	NNW 5	N 7	N 8	NNW 7	NW 7	NW 5
4	NW 4	N 5	N 4	N 3	N 4	N 4	NW 4	NW 5	N 5	0	S 3	S 0
5	0	0	0	NW 3	NW 2	0	S 2	S 0	SE 0	SSW 2	S 0	N 0
6	N 0	0	0	SE 0	0	0	0	SE 0	S 3	S 0	0	0
7	N 0	0	S 2	0	SE 2	SE 2	N 2	N 7	N 7	N 6	N 6	N 8
8	N 6	N 4	N 6	N 7	NNW 6	NNW 7	NNW 6	NNE 3	N 8	NNE 5	NNE 4	NE 3
9	NNE 3	NNE 4	N 4	N 8	N 5	N 6	N 8	N 6	N 7	N 3	N 7	N 7
10	N 6	NNW 6	N 7	N 2	NNW 6	NE 2	S 0	N 3	NW 8	N 4	0	N 4
11	N 9	N 11	N 8	NW 9	NW 7	N 5	NW 9	NW 9	N 8	N 7	N 9	N 6
12	N 6	N 5	N 5	NNW 5	NW 4	NW 6	NNW 6	NNW 6	N 5	N 5	NNW 5	N 5
13	N 6	NNW 7	NW 5	N 5	N 5	N 4	N 4	N 5	N 4	N 2	N 4	N 7
14	N 5	N 2	NW 2	S 1	S 2	S 0	0	S 2	E 0	0	0	S 2
15	S 3	S 3	NNW 6	N 5	NNW 6	N 4	NE 5	N 4	N 5	N 6	NNE 4	N 4
16	S 3	SE 4	0	W 0	0	0	0	0	0	0	S 0	S 3
17	0	0	0	S 0	ENE 2	E 0	S 0	0	0	SE 0	N 0	0
18	0	0	0	0	N 0	SE 0	SW 0	0	0	0	0	0
19	N 2	0	NW 0	0	0	0	0	E 0	S 0	S 0	N 5	N 4
20	N 6	N 6	N 9	NW 8	NNW 8	NNW 3	N 9	N 11	N 10	N 12	N 11	N 13
21	N 11	N 12	N 13	N 12	N 12	N 12	N 12	N 9	N 7	N 11	N 8	N 9
22	N 7	N 6	N 8	N 8	N 5	N 8	N 6	N 7	N 6	N 12	N 14	N 13
23	N 12	N 13	N 13	N 14	N 9	N 5	N 3	N 11	N 8	N 11	N 12	N 12
24	N 11	N 9	N 10	NNW 8	NNW 11	NNW 8	NNW 9	N 5	N 6	N 7	N 3	N 4
25	N 7	N 10	NW 11	NW 11	NW 10	NW 10	NW 12	NW 10	NW 13	NW 11	NW 11	NW 12
26	NW 14	NW 14	N 10	NNW 8	NNW 11	NNW 14	NNW 11	NNW 13	NNW 12	NNW 13	N 11	NNW 10
27	N 10	N 8	N 3	N 4	0	0	SW 2	SW 0	NW 3	NW 0	0	0
28	N 3	NNW 4	NNW 4	NNW 7	N 6	N 10	NNW 8	NNW 10	NNW 9	NNW 9	NNW 10	NNW 6
29	NNW 5	N 4	N 3	N 0	S 0	N 0	NE 0	SE 13	SE 11	SE 11	S 2	N 0
30	SE 15	ESE 11	NE 2	E 4	N 0	N 5	0	NNE 3	0	S 4	N 7	N 10
31	N 12	NNW 12	NNW 13	NNW 11	NW 12	NW 6	NW 7	NNW 5	NNW 5	N 6	N 9	N 6
Mean	5.8	5.7	5.3	5.1	5.0	4.6	4.7	5.5	5.7	5.3	5.3	5.2

1901. November.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 6	N 8	N 9	N 3	N 9	N 4	NW 10	N 7	N 10	N 13	WNW 18	NNW 15
2	NNW 12	NNW 12	NNW 12	NNW 11	NNW 10	NNW 8	NNW 9	NNW 12	NNW 13	NNW 14	NNW 11	NNW 12
3	NNW 12	NNE 4	N 5	NE 0	NNE 4	SSW 2	W 1	0	S 5	S 6	S 7	S 5
4	SSE 6	SSE 5	SSE 5	SSE 4	0	SW 0	0	E 2	0	NW 12	NW 12	NW 6
5	NW 12	NW 3	NW 2	N 6	N 8	NW 8	N 4	N 8	N 8	N 7	N 3	0
6	0	SSE 0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	N 2	NNW 5	NNW 7	NNW 11	NNW 11	NNW 9	NNW 9	NNW 10	NNW 10
8	NNW 12	NNW 11	NNW 13	N 11	N 11	N 12	N 12	N 16	N 12	N 13	N 12	N 11
9	N 10	N 12	N 10	N 13	N 8	SSE 6	NE 3	NNE 2	SE 0	0	0	0
10	N 0	SE 8	SE 15	SE 15	SE 10	SE 12	SE 0	N 3	S 0	0	0	0
11	S 3	0	0	0	0	0	SE 11	SE 12	SE 11	S 12	SE 13	SE 12
12	SE 11	ESE 13	SE 13	ESE 16	ESE 15	ESE 18	SE 17	SE 13	ESE 22	ESE 16	ESE 14	SE 19
13	ESE 17	ESE 19	ESE 17	S 11	S 9	SSE 10	SSE 12	SSE 9	SSE 12	SSE 12	SSE 11	SSE 12
14	SSE 11	SSE 5	SSE 5	SSE 7	0	NNW 4	NNW 3	NNW 6	NNW 6	NNW 6	NNW 8	NNW 8
15	NNW 6	N 6	NNW 6	N 5	NNW 5	NNW 8	NNW 6	NNW 6	NNW 6	0	0	0
16	0	ESE 2	SE 3	0	S 2	SSE 5	S 5	S 8	S 9	S 13	S 12	S 10
17	S 15	S 14	S 12	E 15	E 14	SE 17	SE 11	SE 15	SE 9	SE 8	N 0	0
18	0	0	0	SW 0	S 1	SSE 3	N 3	N 8	N 6	N 6	N 4	N 4
19	N 5	NE 7	N 4	N 5	N 5	N 9	N 10	N 10	N 12	N 11	N 9	N 12
20	N 14	N 9	N 9	N 5	N 13	N 12	N 15	N 9	N 8	N 3	SSE 4	W 0
21	0	E 0	SSW 9	SW 12	SSW 9	SW 5	SW 2	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	S 0	0	0	N 2	0	0	SSE 3	SSE 3	0
24	0	NNW 7	NNW 3	0	SSE 3	SSE 3	0	0	0	0	0	0
25	0	0	0	0	0	0	0	N 6	N 9	N 10	NNW 11	NNW 12
26	NNW 11	NNW 13	NNW 12	NNW 3	NNW 8	NNW 8	NNW 5	N 6	0	SSE 5	S 4	
27		0	0	S 3	S 5	S 8	S 4	0	E 0	N 0	0	0
28	0	ENE 0	0	E 0	ENE 1	NW 2	SSE 5	0	ENE 2	NNE 5	NE 3	N 12
29	N 11	N 12	N 15	N 14	N 19	N 9	N 12	N 14	N 15	N 18	N 14	N 14
30	NNW 10	NNW 4	NNW 9	NNW 11	N 6	NNW 3	S 4	0	0	0	0	N 2
Mean	6.0	5.8	6.3	5.7	6.0	6.1	5.9	6.1	6.1	6.7	6.1	5.9

1901. December.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	S 7	S 3	SSE 8	S 6	S 4	S 3	S 6	S 7	S 4	N 2
3	NW 5	NNW 8	NNW 8	N 5	N 5	NNW 4	NNW 5	NNW 6	NNW 7	NNW 5	NNW 6	N 8
4	NW 12	NNW 7	N 7	N 12	NNW 13	NNW 9	NNW 5	N 6	N 5	N 5	N 4	N 4
5	N 5	N 5	N 5	N 6	NNE 4	N 6	NNE 5	N 5	N 4	N 6	N 4	N 6
6	N 7	N 5	N 0	0	NW 0	0	S 3	S 5	E 0	SE 2	SE 3	0
7	0	S 3	0	W 0	SSE 2	0	0	0	NNW 0	NNW 5	NNW 5	NNW 2
8	SSW 4	NNW 4	NNW 3	W 2	SSW 2	SSE 2	S 7	SSE 5	S 7	S 7	S 8	S 8
9	S 10	S 11	S 5	SSW 9	S 9	S 10	S 8	SE 6	S 3	S 0	0	0
10	0	S 1	NNE 0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	S 3	0	E 0	NE 4	NNE 3	0
12	N 5	NNW 9	NNW 5	NNW 9	NNW 15	NNW 11	NNW 12	NNW 12	NNW 10	NNW 10	NNW 10	NNW 5
13	NNW 8	NNW 5	NNW 9	NNW 7	NNW 10	NNW 10	N 10	NW 6	NW 16	NW 15	NW 13	NNW 10
14	NNW 8	NW 6	NNW 2	SSW 5	0	0	0	SE 0	0	0	SE 4	N 7
15	N 6	N 2	N 15	N 13	NNW 11	NW 9	N 17	N 8	N 4	N 9	N 9	N 5
16	S 5	S 2	NW 2	0	SSE 6	SSW 11	SW 9	SW 9	SW 10	SW 8	SW 8	0
17	0	NW 3	N 4	NNW 4	0	NNW 4	NNW 8	NNW 14	NNW 13	NNW 13	NNW 12	N 9
18	N 12	NNW 14	NNW 12	NNW 13	N 11	N 11	N 11	N 8	N 7	N 11	NW 13	NW 12
19	NW 13	NW 12	NW 15	NW 16	NNW 17	NW 16	NW 15	NNW 11	NW 9	NW 9	NW 9	NW 10
20	NW 9	NW 6	0	S 0	0	0	E 2	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	SW 0	N 0	0	0	0	NNW 0	0	0	0	0	NNW 0	0
23	0	0	0	N 0	SE 0	NW 2	SE 0	E 0	W 2	SE 0	SE 3	SE 5
24	S 3	S 4	NW 10	NW 10	NW 12	NW 15	NW 12	NNE 5	SW 0	SE 4	S 5	S 5
25	NE 2	NW 13	WNW 14	SE 6	SE 13	SE 17	SSE 9	S 7	SE 7	SSE 9	0	SE 0
26	0	0	0	SW 8	W 0	N 0	NE 0	SW 0	0	0	0	0
27	S 1	0	0	0	0	S 0	S 2	0	0	0	SE 12	SE 12
28	SE 15	SE 13	ESE 14	S 11	S 11	S 7	S 8	SSE 9	SE 11	SE 9	ESE 12	SE 11
29	SE 13	SE 11	S 8	S 11	S 14	S 11	S 10	S 6	SSE 5	S 4	S 4	S 5
30	0	0	0	0	0	0	W 0	SSW 3	SE 0	S 7	S 10	SSW 6
31	0	SSW 6	S 7	S 7	S 7	SW 9	SW 9	SW 10	SW 7	SW 7	SW 9	SW 10
Mean	4.6	4.8	4.9	5.1	5.5	5.5	5.6	4.7	4.3	5.0	5.8	4.6

1902. January.

Gaasefjord. $\varphi = 76° 40' N.$ $\lambda = 88° 38' W.$

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	SSW 10	SSW 12	SSW 8	S 6	S 5	S 6	S 4	S 6	S 6	S 4	S 3	S 6
2	S 3	SE 3	E 2	S 0	ESE 2	SE 1	ESE 2	S 2	SSE 2	E 0	SE 0	SE 0
3	0	0	0	0	0	SE 0	0	S 2	S 4	SSW 0	N 6	N 5
4	N 7		N 0	N 4	0	S 4	S 5	S 3	S 0	0	0	0
5	0	0	0	0	SW 0	0	S 0	S 0	NW 0	0	S 0	0
6	N 2	0	0	0	0	N 0	0	0	0	0	0	0
7	0	0	0	S 0	0	0	0	NW 0	N 2	N 2	0	0
8	0	0		S 0	SE 0	SE 4	SE 2	S 7	S 0	S 4	S 6	S 5
9	SSE 2	N 0	N 4	NW 2	0	SSE 5	SSE 3	S 7	SSE 3	SSE 3	SSE 4	SSE 2
10	SE 4	SE 3	S 3	E 4	S 5	S 0	SE 3	SE 0	N 5	N 6	N 6	NE 5
11	0	0	0	0	0	SE 0	SE 0	SE 0	S 4	0	0	S 2
12	0	SE 3	S 4	S 3	SSE 3	S 0	SSE 3	E 2	0	N 0	NE 0	0
13	0	W 2	0	SW 0	SE 0	0	NW 0	0	0	0	S 0	S 0
14	S 2	0	N 5	N 17	NNE 8	NNE 13	NNE 12	N 12	NNE 6	N 13	NNE 17	N 16
15	N 19	W 0	NNE 5	WNW 0	N 0	NE 4	SE 3	WSW 4	S 0	0	SE 3	SW 3
16	SW 3	0	0	S 0	S 2	0	S 0	0	S 0	0	0	0
17	S 0	S 2	0	SSE 6	SE 4	SE 4	SSE 4	SSE 3	S 4	NNW 3	N 5	N 6
18	N 9	NW 14	NW 15	NNW 11	NNW 16	NNW 13	NNW 11	NNW 15	NNW 14	NNW 13	NNW 10	NNW 13
19	NNW 5	SW 3	S 0	S 0	0	0	NW 3	0	NW 2	NNW 3	W 0	0
20	0	0	S 0	0	0	SE 4	SSE 6	S 7	S 5	S 6	NW 0	N 9
21	N 4	N 13	N 0	NNW 6	N 7	N 6	N 4	N 6	N 6	N 3	N 0	SE 5
22	0	S 0	S 3	S 0	SE 1	W 0	SE 0	0	0	S 2	SSE 2	S 0
23	0	SSE 0	SSE 0	S 4	S 3	0	SE 0	0	0	0	SE 0	0
24	0	N 2	0	SE 0	0	N 0	0	0	0	0	0	SE 4
25	SE 3	N 6	NNW 11	NNW 9	NNW 12	NNW 14	NNW 19	NNW 17	NNW 15	NNW 18	NNW 19	NNW 16
26	NNW 11	NNW 13	N 6	NNW 16	NNW 9	N 4	NNW 4	N 4	S 5	0	N 0	N 8
27	N 4	NNE 5	N 0	NW 14	N 7	NW 12	NW 16	NW 9	NNW 9	N 10	N 5	N 7
28	N 11	N 7	N 9	N 7	N 11	N 7	NNW 12	N 10	NNW 8	NNW 10	NNW 11	NNW 9
29	NNW 8	NNW 12	NNW 12	NNW 13	NNW 16	NNW 12	NNW 13	NNW 12	NNW 14	NNW 10	NNW 14	NNW 16
30	NNW 19	NNW 14	NNW 14	NW 20	NW 13	NW 11	NW 11	NW 12	NW 11	NW 10	NNW 5	S 3
31	N 3	NW 11	NNW 9	NNW 7	SSE 0	W 0	NW 0	0	SE 0	SSE 5	S 11	S 13
Mean	4.2	4.0	3.5	4.8	4.0	4.0	4.5	4.5	4.0	4.0	4.1	4.9

1902. February.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	S 9	S 6	S 2	NNW 2	ESE 0	ESE 2	SSE 0	NW 0	0	0	0	SSE 0
2	0	0	0	0	0	NE 0	SSW 0	0	SE 0	S 0	S 2	0
3	0	0	0	SE 2	SSW 2	0	0	0	0	0	0	0
4	0	0	0	0	ENE 0	SE 0	NW 0	N 0	N 0	S 0	0	0
5	0	0	0	SE 0	SE 0	0	0	0	NW 0	0	SE 0	SE 0
6	SE 0	SSE 2	0	WSW 0	0	0	S 0	0	S 2	SW 0	0	S 2
7	0	SE 2	0	E 0	0	SE 2	SE 2	SE 3	SE 3	S 6	S 10	S 7
8	SSW 20	SW 12	SSW 9	S 5	SSE 6	SSE 4	S 2	S 2	NW 2	0	0	0
9	S 0	S 0	S 9	SSW 18	SE 8	ESE 13	SE 10	SW 12	SW 11	SW 11	SSW 9	SSW 12
10	S 10	0	S 11	S 10	S 8	SE 2	ENE 5	S 6	S 10	S 7	ESE 2	S 11
11	S 9	S 3	S 9	S 5	S 7	S 6	S 6	S 6	S 6	S 4	S 3	S 0
12	S 0	SSE 0	SSE 3	SW 4	S 6	SSE 4	S 4	SSW 5	SSW 6	0	S 3	0
13	SE 0	0	N 0	N 5	N 3	NW 8	NNW 8	NW 10	NW 9	NNW 8	NNW 10	NNW 11
14	N 13	N 19	NNW 19	NNW 18	NNW 12	NNW 10	NNW 12	NW 16	NW 10	NW 9	NW 5	NW 6
15	NW 4	NW 10	N 0	N 0	NNW 8	NNW 8	NNW 8	NNW 6	N 0	NNW 8	N 4	N 8
16	N 9	N 10	N 9	N 7	NW 9	NW 12	NW 13	NNW 14	NNW 11	NW 5	N 4	NW 10
17	NW 15	NW 7	N 11	N 11	NNW 7	NE 3	NNW 3	NE 3	N 0	N 5	S 3	SE 3
18	SE 2	S 2	SE 2	0	SE 1	SE 2	SSE 4	SSE 5	SSE 5	NNW 2	SSE 2	SSE 2
19	0	S 5	S 5	S 5	S 7	S 7	S 5	S 3	S 0	S 0	SE 0	0
20	0	S 0	0	WSW 0	W 0	SE 0	S 0	S 0	S 5	SE 7	SSE 6	0
21	S 5	S 3	S 3	SSE 2	NE 3	N 7	SSE 6	SSE 2	S 3	SSE 3	S 4	0
22	0	0	0	0	SE 2	NW 7	NW 10	NW 8	NNW 9	NNW 2	0	S 5
23	S 4	S 5	0	0	0	N 2	N 5	0	S 0	0	N 0	SE 3
24	SE 6	SE 9	0	SE 6	SE 0	SW 0	NW 4	ESE 2	WSW 0	NE 0	SSE 3	0
25	0	0	0	SE 3	0	N 4	NW 11	NW 12	NW 11	NW 12	NW 13	NNW 11
26	NNW 10	NNE 8	N 9	N 5	NNW 10	NW 3	NW 11	NW 5	NW 6	ENE 1	NNE 2	NNE 0
27	S 2	SW 3	SSW 5	SSW 3	SE 0	SE 0	SE 0	N 0	S 0	0	0	0
28	0	0	0	S 2	SE 3	S 0	E 1	NE 3	N 9	N 9	N 14	N 13
Mean	4.2	3.7	3.8	4.0	4.0	3.8	4.6	4.4	4.2	3.5	3.5	3.7

1902. March.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	N 12	N 8	N 13	NNW 12	NNW 8	N 6	ESE 0	SSE 5	SSE 5	S 0	0	0
2	SE 0	SE 2	SE 3	SE 0	SE 4	0	SE 5	SE 9	SE 0	SSE 5	N 0	S 5
3	S 7	SSE 5	SSE 3	SSE 3	SSE 2	WNW 1	SE 5	SSE 4	N 5	S 3	N 3	N 7
4	N 8	N 2	W 2	S 3	E 0	0	S 0	S 0	S 0	0	0	NE 0
5	SE 0	0	0	0	0	0	0	S 4	S 3	S 6	S 6	S 0
6	0	S 2	S 2	0	S 3	E 0	0	0	W 0	0	0	0
7	N 2	0	0	0	SE 0	SE 2	S 3	E 2	N 7	NNW 13	NW 14	NW 18
8	NW 17	NW 17	NW 18	NW 18	NW 17	NW 15	N 7	NW 7	NW 4	NNW 7	SW 3	N 2
9	0	0	S 4	SSE 2	0	0	0	0	0	0	0	S 0
10	0	0	N 0	0	E 0	ESE 0	0	0	0	NW 0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	SSE 2	0	0	SSE 2	SSE 4	E 0	SSE 4	SSE 5	0
13	SE 6	SE 5	S 1	SSE 4	SSE 5	SSE 4	SE 2	SSE 3	SSE 6	SSE 4	SSE 2	SSE 3
14	S 3	0	SE 1	SE 2	SE 0	S 0	SW 0	0	S 4	SSE 5	S 5	S 5
15	S 5	S 4	SSE 3	S 2	SE 2	S 3	SE 0	E 0	E 0	S 3	0	NNW 4
16	N 7	NNW 4	NNW 6	NNW 10	NNW 11	NNW 12	NNW 14	NNW 15	NNW 16	NNW 15	NNW 16	NNW 16
17	NNW 19	NNW 16	NNW 11	NNW 17	NNW 17	NNW 12	NNW 9	NNW 6	S 5	SSE 7	SSE 6	S 3
18	S 5	SSE 5	SSE 4	SE 2	W 0	W 0	SE 0	SE 0	SW 0	0	0	SW 3
19	SW 3	S 3	S 8	S 10	S 10	SE 10	SSE 12	SE 12	SSE 13	SSE 11	SSE 14	SSE 14
20	SSE 13	SSE 14	SSE 10	SSE 14	S 14	SE 11	SE 10	SE 10	SE 12	SE 12	SE 11	SE 15
21	SE 13	SE 11	SE 11	SE 14	SE 15	SE 10	SSE 8	SSE 5	SE 3	N 0	0	SE 0
22	S 4	SSE 0	NNW 1	ENE 2	SSE 1	NW 1	W 0	S 0	0	N 2	0	0
23	SE 9	ESE 11	ESE 18	ESE 17	ESE 20	ESE 20	ESE 18	ESE 17	ESE 18	ESE 19	SE 15	ESE 17
24	SE 13	ESE 18	SE 15	ESE 18	SE 13	ESE 17	ESE 17	SE 19	SE 16	SE 14	ESE 24	ESE 21
25	SSE 22	SSE 26	SSE 37	SSE 28	ESE 29	ESE 27	ESE 25	ESE 24	ESE 19	ESE 17	SE 14	ESE 15
26	ESE 14	SE 12	SSW 15	S 10	S 8	S 6	S 7	S 6	0	0	0	SSE 0
27	E 0	0	0	NE 3	NW 5	NNW 5	NNW 7	NW 9	NNW 10	NW 12	NW 11	NNW 12
28	NNW 15	NW 13	NW 16	NNW 14	NNW 15	NW 12	NNW 8	NW 15	NNW 8	N 6	N 7	NW 8
29	N 4	N 9	N 5	N 8	NW 10	NW 13	NNW 13	NW 9	NNW 11	NW 12	NW 11	NW 8
30	NNW 10	NW 14	NW 12	NW 8	NW 7	N 6	N 6	N 7	N 9	SSE 6	SSE 6	SSE 3
31	SSE 3	SSE 3	0	SSW 6	S 6	S 6	S 3	S 6	E 4	S 7	S 7	S 2
Mean	6.9	6.6	7.1	7.4	7.2	6.4	5.8	6.4	5.7	6.1	5.8	5.8

1902. April.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	S 1	SE 3	0	S 2	NW 1	SE 0	N 4	N 3	N 6	N 4	SE 3	SE 2
2	S 3	NE 4	NE 3	NNW 9	N 8	NNW 11	NNW 11	N 7	NNW 11	NNW 12	NNW 10	NNW 8
3	NE 5	N 5	N 7	N 11	NW 15	NNW 13	NNW 8	NNW 5	NNW 6	NNW 5	NE 4	0
4	0	N 0	N 0	E 2	NNW 12	NNW 12	NNW 15	NNW 16	NW 11	NNW 10	NNW 12	NNW 11
5	NW 12	NE 5	N 5	NE 4	NW 9	NW 13	NW 12	NW 15	NW 16	NW 14	WNW 13	NNW 11
6	N 16	NNW 11	NNW 7	N 2	SSE 4	SSE 8	SW 9	SW 11	SW 5	0	ESE 0	ESE 0
7	0	0	0	0	N 4	NW 11	NW 9	NW 11	N 11	NW 15	NW 19	NW 17
8	NW 20	NW 14	NW 11	NW 10	NNW 8	NNW 8	NNW 11	N 4	N 6	N 7	N 4	N 4
9	0	NE 3	NE 3	NW 7	NW 9	NW 10	NNW 9	NNW 12	NNW 15	NNW 15	NNW 19	NW 15
10	NNW 15	NW 15	NW 13	NW 12	NNW 10	NW 12	NNW 11	NNW 6	NNW 7	NNW 8	NNW 7	NNW 5
11	NNW 5	SSE 4	SSE 3	E 0	SW 9	SE 10	SW 12	SW 10	SW 8	SW 10	SE 4	SE 2
12	0	0	0	0	NE 0	0	0	0	SE 3	SW 2	SSE 3	SSE 3
13	SSE 3	SSW 3	SW 4	0	NW 7	NW 9	NE 4	S 0	0	0	0	SE 4
14	S 6	SSE 5	SE 6	SSE 5	S 8	S 6	S 5	SE 3	S 5	SW 5	S 6	S 5
15	SE 2	SW 4	SW 4	SSE 5	S 7	SSW 4	SSW 6	SW 3	S 4	SE 3	ESE 3	SSE 2
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	NNE 3	N 13	NNW 11	NNW 12	NW 9	NNW 9	NNW 13	N 4	NNE 4
18	N 6	N 11	N 9	N 5	N 12	NNW 11	NNW 8	NNW 6	NNW 9	NNW 6	NNW 8	NE 3
19	SW 4	SW 4	0	0	NE 5	NE 4	N 7	N 5	N 9	N 5	NE 4	NNE 3
20	NE 4	N 3	NNE 5	NE 7	NE 4	NE 6	NNE 5	N 2	NE 3	N 7	N 7	NW 10
21	NW 6	NW 7	NW 11	NNW 6	NNW 5	NW 7	NW 4	NNW 5	NW 4	N 2	SE 4	SE 2
22	0	0	0	SE 0	0	0	N 4	N 3	N 0	SSE 2	SSE 3	SE 2
23	0	0	0	SSE 1	S 2	S 3	S 5	SE 2	SE 0	0	0	0
24	0	0	NE 2	0	0	0	0	0	S 3	S 0	S 3	SSE 5
25	S 0	0	0	0	0	0	0	0	0	SE 0	0	0
26	S 4	0	SE 2	0	S 1	S 1	0	0	0	SE 2	S 2	0
27	SSW 7	0	SE 2	0	SE 3	SE 2	S 5	N 6	NNE 6	NNW 2	0	SE 2
28	NE 4	0	N 3	N 2	SSE 4	0	SE 2	S 4	W 0	S 4	S 2	0
29	0	0	0	0	0	SSW 2	0	0	0	0	SSE 3	SSE 5
30	0	SW 3	NE 5	NW 9	NW 12	NW 9	N 10	NNW 13	NNW 9	N 9	S 2	SE 0
Mean	4.1	3.5	3.5	3.4	5.7	6,1	6.3	5.4	5.5	5.4	4.7	4.2

1902. May.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
1	0	0	E 12	SE 11	SE 9	SE 6	SSW 5	S 1	0	0	NE 2	N 2
2	S 5	0	0	0	0	0	S 0	NW 5	NW 5	NW 8	NW 6	N 6
3	N 6	N 9	N 10	N 5	N 6	NNW 6	NNW 6	NNW 5	NW 3	NW 5	NW 5	NE 3
4	NE 3	N 4	N 6	N 8	N 11	N 10	NW 7	NW 7	NW 6	NW 4	NW 5	NW 5
5	NW 4	0	N 3	SE 2	SE 2	S 2	S 0	S 2	S 3	SE 0	S 5	0
6	0	0	SE 2	SE 1	SSE 6	S 2	NW 6	NW 4	NW 7	NW 3	NNW 4	E 2
7	S 4	SSE 3	0	0	0	0	0	0	SE 3	S 4	S 8	SE 7
8	SE 5	SE 7	SE 5	SE 8	SE 8	S 8	S 7	S 8	SSW 4	SW 5	SE 2	0
9	0	S 3	0	0	0	NW 3	SE 6	SE 8	SE 4	SE 2	SE 3	SE 3
10	SE 4	0	E 7	0	NW 2	NW 1	NW 3	NW 3	NW 4	NW 3	NW 4	NW 1
11	NW 4	N 7	N 5	N 5	N 4	N 4	NW 4	NW 7	NW 3	N 3	N 0	0
12	0	0	0	0	0	SE 1	SE 2	S 2	0	S 2	0	SE 2
13	0	NW 8	N 2	NE 3	N 3	N 3	N 0	SE 9	SE 4	S 7	S 9	SE 10
14	SE 7	SE 7	SE 7	SE 7	S 7	S 6	W 0	0	NW 3	NW 2	NW 4	NNW 4
15	0	0	0	N 5	N 5	N 5	N 4	N 2	N 3	N 4	N 4	NNE 7
16	N 6	N 7	NNE 6	N 7	N 6	N 7	N 6	N 9	N 6	NW 7	NW 6	NW 6
17	NW 7	N 3	N 4	N 2	N 2	0	SW 0	0	0	SW 6	SSW 9	SW 8
18	S 7	SE 9	SE 13	SE 14	SE 13	SE 13	SE 13	SE 15	SE 17	SE 12	SE 9	SE 6
19	N 5	N 8	NE 7	NNE 5	N 6	N 9	NNW 5	N 5	NNW 7	NNE 5	N 4	NNE 3
20	NNE 4	N 5	N 6	N 5	N 7	NNW 12	N 7	N 8	N 8	NNW 8	NNW 16	NNW 10
21	NNW 10	NNW 14	NNW 11	NNW 11	NNW 10	NNW 11	N 6	N 6	N 5	N 5	N 4	E 2
22	0	0	E 0	0	0	NNW 9	NNW 10	NNW 12	NNW 8	NW 8	0	N 3
23	0	0	N 10	N 8	N 9	N 7	N 9	N 7	NW 9	NNW 5	N 4	0
24	0	S 6	S 2	S 0	S 0	S 0	N 0	NW 5	NW 3	NW 3	NW 3	0
25	0	NE 3	NE 4	N 4	N 10	N 9	NW 12	NW 8	N 8	N 12	NW 8	NW 8
26	NW 9	N 3	NW 12	N 9	NW 8	NW 6	N 5	N 3	N 4	N 5	N 0	0
27	S 2	S 3	S 1	0	S 0	0	N 2	N 0	N 3	N 2	0	S 0
28	0	0	0	S 3	SSW 4	SSW 5	SW 5	SSW 4	0	S 2	0	0
29	S 3	0	0	0	0	0	NW 4	NW 4	NW 5	NW 5	NW 5	NW 8
30	NW 9	NW 6	NW 7	NW 11	NW 8	NW 8	NNW 8	N 10	N 10	N 8	NNE 7	N 4
31	N 2	N 6	N 6	N 6	NNW 8	N 5	N 2	NW 5	NW 5	NNW 5	NNW 4	NNW 6
Mean	3.4	3.9	4.8	4.5	5.0	5.1	4.6	5.3	4.8	4.8	4.5	3.7

1902. June.

Gaasefjord. $\varphi = 76° 40' $ N. $\lambda = 88° 38'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	NNW 4	NNW 4	0	0	NNW 4	N 6	NW 11	N 5	N 4	N 4	N 2	NE 2
2	NE 0	0	0	NE 2	NNE 3	NNW 2	N 0	0	N 2	W 2	W 1	0
3	SW 3	S 3	SW 3	SW 5	SW 3	0	S 0	0	0	NW 7	NNW 6	NW 8
4	NW 7	NW 6	NW 5	NW 6	NNW 7	NNW 9	NNW 10	NW 9	NW 6	NNW 2	0	0
5	0	SE 4	0	W 2	SSE 2	SSW 3	SW 4	S 6	SW 7	SSE 7	SSE 7	SE 6
6	0	0	0	NE 2	N 2	SW 2	SW 2	E 0	SW 4	SW 2	SSE 2	NNW 2
7	0	0	N 10	W 7	WNW 8	WNW 6	WNW 8	NW 7	NW 5	0	0	0
8	0	0	0	0	SW 0	NNW 3	N 1	SE 2	W 2	S 2	SW 5	SW 4
9	S 7	SSE 6	E 12	ESE 12	S 8	SW 4	SE 2	SSE 0	SSE 4	SSE 3	SSE 1	S 3
10	0	0	0	0	SSW 2	S 5	SSW 4	SSW 4	0	S 0	SE 2	0
11	0	0	0	N 1	0	NNE 2	NW 3	N 6	NNW 4	0	0	NW 9
12	N 6	0	N 0	SE 3	S 2	S 0	N 1	0	N 0	SE 4	SE 2	SE 2
13	0	0	0	0	SE 2	0	N 2	N 5	N 5	N 5	N 5	N 5
14	N 6	N 4	N 5	NNW 8	NNW 10	NNW 11	N 6	N 4	N 4	N 3	NNW 3	NNW 2
15	NNW 3	NW 2	NW 4	NW 5	NW 5	NW 6	N 4	N 3	N 2	N 3	0	NNE 3
16	N 3	N 6	N 2	N 0	N 0	S 5	SW 4	SSE 7	SW 4	SW 6	S 2	0
17	S 0	W 6	SW 5	SE 1	SE 3	0	S 2	S 3	SE 4	SE 3	SE 4	SE 5
18	S 5	SE 3	0	0	S 7	S 4	S 4	SSW 7	SW 7	SW 5	SE 9	SSE 5
19	SE 8	SE 9	SSE 10	SSE 10	S 7	S 6	S 5	SSW 6	S 6	S 3	0	S 5
20	0	0	0	0	SE 3	S 0	SE 3	S 2	S 0	S 3	0	S 2
21	S 4	SE 4	S 3	SSW 7	S 6	S 5	SE 10	SE 9	SE 10	SE 10	SE 10	SE 9
22	SE 7	SE 11	SW 8	SE 10	SE 11	SE 13	SSE 9	S 10	SSE 9	SSE 10	SSE 10	SSE 11
23	SSE 9	SE 11	SE 12	SSE 10	SSE 7	SSW 7	SSW 8	SSW 9	SW 7	SW 7	S 4	E 0
24	S 3	S 3	S 3	S 0	SE 1	SE 2	ESE 5	SSE 4	SSE 4	S 4	S 4	S 6
25	S 3	S 2	S 2	S 2	SSE 3	SSE 3	S 3	SSE 3	S 3	S 3	SSE 2	0
26	0	0	S 2	SE 3	SSE 4	S 5	SSW 8	SW 7	S 5	S 4	SSW 6	SW 6
27	SSW 8	S 8	S 6	S 8	S 10	S 7	S 8	S 4	S 7	S 2	S 7	S 8
28	SSE 6	SSW 8	S 6	S 7	S 5	S 7	S 7	SE 4	SE 6	SE 2	SE 3	SW 3
29	0	SSE 2	SSE 2	0	S 3	SE 2	SE 5	SSE 4	S 3	S 4	S 4	0
30	S 0	0	0	0	0	S 2	0	S 2	N 2	N 2	E 0	N 3
Mean	3.1	3.4	3.3	3.7	4.1	4.2	4.6	4.4	4.2	3.7	3.4	3.6

1902. July.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2^h	4^h	6^h	8^h	10^h	Noon	2^h	4^h	6^h	8^h	10^h	Midt.
1	N 3	N 4	N 8	N 4	N 6	N 0	NNW 5	N 1	N 2	N 3	N 2	N 5
2	N 4	N 4	N 5	0	S 7	S 8	SSE 6	SSE 8	SSE 3	E 2	S 3	N 4
3	NNE 5	NNE 5	N 4	N 6	N 4	NNW 3	N 5	N 8	N 8	NW 8	NW 5	NW 6
4	0	0	N 0	N 0	N 5	NNW 4	NNW 5	NNW 4	N 5	NNE 3	N 2	N 2
5	S 5	0	0	S 2	S 2	S 3	S 6	S 7	S 5	S 8	S 5	S 3
6	SE 3	0	0	0	N 2	NNW 5	N 5	N 3	N 5	N 6	ENE 4	NE 2
7	NE 7	N 7	N 3	N 3	0	SSE 7	SSE 7	SSE 4	SSE 5	SE 5	SE 5	SE 7
8	SE 7	S 2	S 2	S 3	SSE 7	SE 6	SSE 4	0	S 2	N 6	N 5	N 4
9	N 3	N 2	N 3	N 0	0	SE 6	SE 5	SE 4	S 2	SE 2	SE 6	SE 3
10	SE 2	SE 2	0	SE 3	SE 0	SSE 7	SSE 6	S 7	S 8	S 5	S 4	S 2
11	0	SSE 5	S 3	S 2	SSE 3	0	S 4	SSE 4	W 2	SSE 3	SE 2	0
12	0	0	0	0	0	0	S 2	NW 1	NNW 5	NNW 4	NNW 3	NE 3
13	0	SW 2	0	N 6	NNE 3	NNW 4	NNW 8	NNW 10	NNW 8	NNW 6	NNW 7	NNW 6
14	NNW 7	N 2	N 8	N 7	N 4	NNE 4	S 2	S 0	SW 3	SSE 2	0	SSE 4
15	SSE 6	SSE 5	S 4	S 4	S 7	S 6	S 3	S 4	SE 3	SE 5	SE 5	SE 3
16	SSE 3	SE 2	SE 2	SE 2	SE 0	S 4	SE 3	SE 2	S 2	S 0	0	N 5
17	N 4	NE 3	NE 3	N 4	N 8	NNW 7	NNW 4	NNW 7	NNW 6	NNW 5	NNW 5	N 4
18	N 3	NNE 3	N 9	NNE 4	N 5	N 5	S 8	S 8	SSE 8	S 8	SSE 7	SE 4
19	SE 4	0	0	0	0	N 5	N 7	N 7	N 5	N 4	S 7	0
20	0	ESE 3	ESE 3	S 8	SSE 4	S 8	SW 6	WSW 6	WSW 2	SW 7	E 2	SSW 6
21	SE 3	S 2	N 2	N 3	W 6	*6*	*6*	SW 6	*6*	SSW 6	*6*	SSW 8
Mean	3.3	2.4	2.8	2.6	3.5	4.7	5.2	4.9	4.6	4.7	4.1	3.9

WIND. DIRECTION.

Counting the number of cases in each month in which each direction has been observed, and dividing the totals for each direction by the total number of observations made in the month, calms included, we obtain, when the quotients are multiplied by 100, the numbers in the following Table. These numbers show the frequence of the different winds and calms as percentages of the total number of observations made. The numbers belonging to the intermediate points NNE, ENE, etc. have been distributed evenly, each with half their amount, among the adjacent 8 principal rhumbs. The sum of the horizontal rows is 100. The last row in each month gives the means for the month.

January.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	34	22	14	2	3	2	3	6	14
1900	0	0	0	0.5	2	0.5	1	0	96
1901	66.5	6	0	0	10	0	0	2.5	15
1902	24	2	1.5	11	21	1.5	1	13	25
Mean	31.1	7.5	3.9	3.4	9.0	1.0	1.2	5.4	37.5

February.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	29	14.5	7.5	0	5	2	5	5	32
1900	3.5	6.5	7	3.5	7	1.5	0	0	71
1901	41.5	4.5	0	4	16	5	1	4	24
1902	24	2	1.5	11	21	1.5	1	13	25
Mean	24.5	6.9	4.0	4.6	12.2	2.5	1.8	5.5	38.0

March.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	31	20	9	1	4	6	2	5	22
1900	3.5	8.5	1	1.5	1.5	0	1	0	83
1901	56.5	4	0.5	2	4.5	2.5	0.5	2.5	27
1902	13	1	5.5	24.5	21.5	1.5	1	13	19
Mean	26.0	3.9	4.0	7.2	7.9	1.0	1.1	5.1	37.7

April.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	29	15	14	1	1	4	4	3	29
1900	3.5	5	2	2	2.5	2	0	1	82
1901	42	10	1	2	19	2	1	1	22
1902	21.5	7	1.5	11	11	5.5	0	18.5	24
Mean	24.0	9.2	4.6	4.0	8.4	3.4	1.2	5.9	39.2

May.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	20.5	16	18	1	8	10	1	5.5	20
1900	2	5.5	6	10.5	3.5	1	2	1.5	68
1901	38.5	4	0	6	27.5	6.5	2	5.5	10
1902	30	3	1	12.5	12.5	2	0	21	18
Mean	22.7	7.1	6.3	7.5	12.9	4.9	1.2	8.4	29.0

June.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	21	6	1.5	0.5	27	16	4	4	20
1900	5	2	3	9.5	5.5	3	1	2	69
1901	35.5	6	1	11	17	8	2.5	10	9
1902	14	1	1	17	28	10	3	8	18
Mean	18.9	3.7	1.6	9.5	19.4	9.2	2.6	6.0	29.0

July.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1899	7	2	1	1	28.5	31	7.5	4	18
1900	3	1	2	23.5	7.5	1	1	3	58
1901	45.5	6.5	0	1	3.5	9	4.5	21	9
1902	32	3.5	1.5	17	23.5	2.5	1.5	6.5	12
Mean	21.9	3.2	1.1	10.6	15.7	10.9	3.6	8.6	24.2

August.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1900	15	4	3.5	8.5	15.5	1	3	2.5	47
1901	30.5	6.5	1	5.5	19	7.5	2.5	11.5	16
Mean	22.7	5.2	2.2	7.0	17.2	4.2	2.7	7.0	31.5

September.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1898	39.5	24.5	11	0	1	1	3	12	8
1900	44	8	4.5	3	3.5	5	7	10	15
1901	42	2	4	5	4	2	0	30	11
Mean	41.8	11.5	6.5	2.7	2.8	2.7	3.3	17.6	11.3

October.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1898	40	24	7.5	1.5	4	1.5	3	9.5	9
1899	3	9.5	1	2	1	0.5	2	1	80
1900	26	17.5	5	9	9.5	8	0	4	21
1901	54	2	1	3	7	1	0	18	14
Mean	30.7	13.2	3.6	3.9	5.4	2.7	1.2	8.1	31.0

November.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1898	20	18	4.5	1	6	5	4	5.5	36
1899	2	1	2	7	2	1	1	2	82
1900	42.5	18	0	1.5	13.5	7	1	3.5	13
1901	31.5	3.5	2.5	11	12	1.5	0.5	10.5	27
Mean	24.0	10.1	2.2	5.1	8.4	3.6	1.6	5.4	39.5

December.

Year	N	NE	E	SE	S	SW	W	NW	Calm
1898	28	21	4	1	2	2	2.5	7.5	32
1899	2	1	4	7.5	2.5	1	0	0	82
1900	56	4	1	1	7.5	3	2	2.5	23
1901	20.5	1.5	1.5	9	17.5	5	1	16	28
Mean	26.6	6.9	2.6	4.6	7.4	2.7	1.4	6.5	41.2

The Table shows

a) that there is a prevailing uniformity in the distribution of the winds in the same month in the different years;

b) that North is by far the most prevalent wind in all months of all years, with the exception of June, in which month — except in 1901 — South is a little more frequent than North;

c) that the other wind-directions are relatively rare.

The maximum and minimum of the relative frequency of the different wind-directions are as follows:

	Maximum	p. c.	Minimum	p. c.	Diff. p. c.
N	September . . .	41.5	June	18.9	22.6
NE	October	13.25	July	3.25	10.0
E	September . . .	6.5	July	1.1	6.4
SE	July	10.6	September . . .	2.7	7.9
S	June	19.4	September . . .	2.8	16.6
SW	July	10.9	Jan. March . . .	1.0	9.9
W	July	3.6	March	1.1	2.5
NW	September . . .	17.6	March	5.1	12.5

The percentage of the total frequency for the year is

N	NE	E	SE	S	SW	W	NW	Calm
26.2	7.4	3.5	5.8	10.6	4.8	1.9	7.4	32.4

The *Calms* are the most frequent, being nearly one third of the total number of cases.

Of the winds, *North* is the most frequent; and next to it comes *South*. The least frequent wind is *West*, and then *East*.

Taking the positive difference between the numbers in the Table on pp. 222 & 223 for the opposite wind-directions, e. g. N—S, NE—SW, etc., and tabulating them, we obtain the following Table, showing

The Windward Side of the Wind-Rose.

	January.				M.	February.				M.	March.				M.
	1899	1900	1901	1902		1899	1900	1901	1902		1899	1900	1901	1902	
N	31		56.5	3	22.1	24		25.5	3	12.3	27	2	52		18.1
NE	20		6	0.5	6.5	12.5	5		0.5	4.4	14	8.5	1.5		2.9
E	11		0	0.5	2.7	2.5	7		0.5	3.2	7	0	0	4.5	2.9
SE		0.5					3.5					1.5		11.5	2.1
S		2					4.5							8.5	
SW		0.5						0.5						0.5	
W		1						1							
NW	4		2.5	2	2.0	5		0	2	0.9	4		0.5		

	April.				M.	May.				M.	June.				M.
	1899	1900	1901	1902		1899	1900	1901	1902		1899	1900	1901	1902	
N	28	1	23	10.5	15.6	12.5		11	18.5	9.9			27.5		
NE	11	3	8	1.5	6.8	6	4.5		1	2.2					
E	10	2		1.5	3.4	17	4		1	5		2			
SE		1	1				9	0.5				7.5	1	9	3.5
S							1.5				4	0.5		14	0.5
SW			1					2.5			10	1	2	9	5.5
W								2			2.5		1.5	2	1
NW	2			7.5	1.9	4.5		8.5		0.9	3.5				

	July.				M.	August.		M.	September.			M.
	1899	1900	1901	1902		1900	1901		1898	1900	1901	
N			42	8.5	6.2		11.5	5.5	38.5	40.5	38	38.7
NE				1		3		1	23.5	3	0	8.8
E		1		0		0.5			8		2	3.2
SE		20.5		10.5		6						
S	21.5	4.5				0.5						
SW	29	0	2.5		7.7		1					
W	6.5		4.5		2.5		1.5	0.5		2.5		
NW	3		20		2		6	0	12	7	25	14.9

	October.				M.	November.				M.	December.				M.
	1898	1899	1900	1901		1898	1899	1900	1901		1898	1899	1900	1901	
N	36	2	16.5	47	25.3	14	0	19	9.5	25.6	26		48.5	11.5	19.2
NE	22.5	9	9.5	1	10.5	13	0	11	2	6.5	19		1		4.2
E	4.5		5	1	2.4	0.5	1		2	0.6	1.5	4		0.5	1.2
SE		1	5				5		0.5			7.5			
S												0.5			
SW												0		3.5	
W		1						1					1		
NW	8			15	4.2	4.5		2		0.3	6.5		1.5	7	1.9

The windward side is the *North* side, except in June and July, in which months the *South* side is more frequent.

The frequency of the calms will be treated of in the chapter on the velocity of the winds.

The peculiar distribution of the winds at all the winter quarters of the Fram may, I believe, be attributed to both local and general causes. The winter quarters were Rice Strait, Havnefjord, and Gaasefjord. The general trend of Rice Strait is north to south, and the two fjords run in an almost exactly meridional direction. This circumstance goes far to account for the direction of the prevalent winds, observed on board the Fram.

But Capt. Sverdrup has told me that a northerly wind was also found almost continuously on the high land around the fjords.

We find the general causes for the prevalence of the most frequent winds in the mean distribution of the atmospheric pressure. As it will be seen from my charts, Pl. XI—XIII, in "The Norwegian North Polar Expedition 1893—1896, Scientific Results, edited by Fridtjof Nansen, Volume VI, Meteorology", there is a barometric gradient towards the East or ESE, i. e. a gradient for northerly winds, at the winter quarters of the second Fram Expedition, in nearly all months. In June and July the pressure is more evenly distributed around Jones Sound, and southerly winds take the place of northerly as the preponderating winds.

WIND. VELOCITY.

The velocity of the wind was measured at each observation-hour with MOHN's hand-anemometer. The friction-coefficient was 1.0 metre per second. Height of anemometer 6 metres above the sea or ice. The observations made at the winter havens are to be found in the Tables of Wind-Observations, pp. 177—221, together with the direction of the wind, and are given in metres per second (reading + friction-coefficient).

WIND-VELOCITY. DAILY PERIOD.

The following Table gives, for each month and year, the monthly means of the observed wind-velocities for each alternate hour, the daily means for each year, the number of days of observation, and in the last row the *weighted* means for each hour, showing the daily period.

January.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	2.1	2.5	2.6	4.1	2.8	3.3	3.0	2.4	2.5	3.5	2.7	2.6	2.84	31
1900	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.1	0.07	31
1901	6.6	6.9	6.6	7.1	6.6	7.0	6.8	7.7	7.3	6.3	5.7	6.9	6.79	31
1902	4.2	4.0	3.5	4.8	4.0	4.0	4.5	4.5	4.0	4.0	4.1	4.9	4.21	31
Mean	3.2	3.4	3.2	4.0	3.4	3.6	3.6	3.6	3.5	3.5	3.2	3.6	3.48	

February.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	1.9	2.4	2.3	2.8	2.4	2.6	2.3	2.3	1.7	2.2	2.5	1.9	2.27	28
1900	2.4	2.5	1.6	1.8	1.0	1.6	1.6	1.5	1.7	1.3	1.9	1.6	1.71	28
1901	6.0	6.6	5.7	5.3	4.8	5.6	6.4	6.2	6.5	5.6	4.8	5.8	5.77	28
1902	4.2	3.7	3.8	4.0	4.0	3.8	4.6	4.4	4.2	3.5	3.5	3.7	3.95	28
Mean	3.6	3.8	3.4	3.5	3.1	3.4	3.7	3.6	3.5	3.2	3.2	3.2	3.43	

March.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	2.2	2.4	2.5	2.9	2.9	2.7	2.7	2.2	2.6	2.8	2.3	2.2	2.53	31
1900	0.6	1.7	1.2	1.0	0.6	1.1	0.4	0.6	0.9	0.5	0.5	0.8	0.83	31
1901	4.3	5.2	5.4	6.4	6.0	6.1	5.5	6.1	5.8	5.8	5.5	5.5	5.63	31
1902	6.9	6.6	7.1	7.4	7.2	6.4	5.8	6.4	5.7	6.1	5.8	5.8	6.43	31
Mean	3.5	4.0	4.0	4.4	4.2	4.1	3.6	3.8	3.8	3.8	3.5	3.6	3.86	

April.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	2.3	2.0	2.0	2.6	2.4	2.6	2.2	2.4	2.5	2.9	2.1	2.3	2.35	30
1900	0.8	1.5	0.9	0.7	0.9	0.8	0.2	0.7	0.9	1.1	1.1	1.0	0.88	30
1901	4.8	3.8	4.3	4.3	4.2	4.9	4.8	5.3	4.5	4.8	4.7	4.7	4.59	30
1902	4.1	3.5	3.5	3.4	5.7	6.1	6.3	5.4	5.5	5.4	4.7	4.2	4.83	30
Mean	3.0	2.7	2.7	2.7	3.3	3.6	3.4	3.4	3.3	3.5	3.2	3.0	3.16	

May.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	2.5	3.2	2.8	3.6	3.8	3.8	3.5	3.6	3.4	3.3	3.0	3.0	3.29	31
1900	1.8	1.1	1.8	1.1	0.7	0.9	1.5	1.7	2.1	1.4	1.5	1.7	1.44	31
1901	5.2	5.8	5.5	5.8	5.7	6.1	5.9	6.3	5.3	5.3	5.5	4.6	5.58	31
1902	3.4	3.9	4.8	4.5	5.0	5.1	4.6	5.3	4.8	4.8	4.5	3.7	4.53	31
Mean	3.2	3.5	3.7	3.8	3.8	4.0	3.9	4.2	3.9	3.7	3.6	3.2	3.71	

June.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	4.9	4.7	4.7	4.3	4.7	5.0	4.2	4.7	4.3	4.5	4.5	4.5	4.58	30
1900	0.4	0.9	0.8	1.0	0.8	0.8	1.2	1.7	1.5	1.2	1.2	1.0	1.04	30
1901	5.4	5.1	5.6	5.1	5.2	5.0	5.7	5.2	5.4	5.0	6.0	6.4	5.43	30
1902	3.1	3.4	3.3	3.7	4.1	4.2	4.6	4.4	4.2	3.7	3.4	3.6	3.81	30
Mean	3.5	3.5	3.6	3.5	3.7	3.8	3.9	4.0	3.9	3.6	3.8	3.9	3.71	

July.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	5.4	4.6	4.7	4.8	4.4	5.3	5.1	5.8	5.3	5.5	5.4	5.2	5.13	24
1900	1.2	1.2	1.2	1.4	0.7	1.5	1.9	3.0	2.1	2.2	1.7	1.3	1.62	31
1901	4.4	4.1	4.9	4.4	4.5	4.7	4.5	4.2	4.7	4.5	4.4	4.8	4.51	31
1902	3.3	2.4	2.8	2.6	3.5	4.7	5.2	4.9	4.6	4.7	4.1	3.9	3.89	21
W. M.	3.4	3.0	3.3	3.2	3.2	3.8	4.0	4.3	4.0	4.1	3.7	3.6	3.63	

August.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1900	1.2	2.2	2.5	1.2	1.8	3.1	3.1	3.0	2.0	1.7	2.8	2.9	2.30	9
1901	3.7	4.7	4.2	4.1	3.8	3.9	4.0	3.6	4.1	3.9	3.3	3.5	3.90	31
W. M.	2.9	4.3	3.9	3.7	3.4	3.8	3.9	3.5	3.7	3.5	3.2	3.3	3.58	

September.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	3.5	3.9	3.3	3.8	2.5	2.7	3.2	3.1	3.8	3.4	3.1	3.6	3.33	12
1900	5.1	4.5	5.6	5.0	4.3	5.1	5.6	4.7	4.7	4.6	4.6	4.7	4.88	13
1901	6.0	5.6	5.3	5.9	5.5	5.2	5.7	5.0	4.6	4.6	5.3	4.7	5.29	30
W. M.	5.3	5.0	5.0	5.3	4.7	4.7	5.2	4.6	4.5	4.4	4.7	4.5	4.66	

October.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	2.6	2.4	2.6	2.8	2.4	2.4	3.3	3.1	3.6	3.3	2.8	2.8	2.84	31
1899	1.4	1.8	1.1	1.2	0.3	0.8	0.2	0.5	0.7	0.5	0.6	1.4	0.88	8
1900	5.0	5.1	4.7	4.6	5.2	5.4	5.6	4.4	3.8	3.9	4.1	4.9	4.73	31
1901	5.8	5.7	5.3	5.1	5.0	4.6	4.7	5.5	5.7	5.3	5.3	5.2	5.27	31
W. M.	4.2	4.2	4.0	3.9	3.9	3.9	4.2	4.0	4.1	3.9	3.8	4.1	4.00	

November.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	2.3	1.8	1.6	1.7	1.5	1.6	1.4	1.6	1.8	1.9	2.3	1.8	1.78	30
1899	0.1	0.9	1.2	0.6	0.2	0.8	0.8	0.6	0.4	0.4	0.6	0.6	0.60	30
1900	5.2	5.9	5.0	6.2	6.9	6.2	6.6	5.5	5.5	6.3	6.2	5.8	5.94	30
1901	6.0	5.8	6.3	5.7	6.0	6.1	5.9	6.1	6.1	6.7	6.1	5.9	6.06	30
Mean	3.4	3.6	3.5	3.6	3.7	3.7	3.7	3.5	3.5	3.8	3.8	3.5	3.60	

December.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	1.7	1.7	2.2	2.5	2.0	1.8	2.0	1.8	1.8	2.5	1.7	1.8	1.96	31
1899	0.6	0.9	0.5	0.9	0.7	0.6	0.9	0.6	0.3	0.2	0.4	0.4	0.58	31
1900	4.9	4.7	4.8	5.5	4.0	4.3	4.4	4.1	5.4	4.8	4.6	4.8	4.69	31
1901	4.6	4.8	4.9	5.1	5.5	5.5	5.6	4.7	4.3	5.0	5.8	4.6	5.03	31
Mean	2.9	3.0	3.1	3.5	3.1	3.1	3.2	2.8	2.9	3.2	3.2	2.9	3.07	

When the weighted means are plotted, it is only in a few months, e. g. May and July, that a regular daily period appears.

Taking the means for the seasons and the year, we get

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean
Dec.—Feb.	3.2	3.4	3.2	3.7	3.2	3.4	3.5	3.3	3.3	3.3	3.2	3.2	3.33
March—May	3.2	3.4	3.5	3.6	3.8	3.9	3.6	3.8	3.7	3.7	3.4	3.4	3.58
June—Aug.	3.3	3.6	3.6	3.5	3.4	3.8	3.9	3.9	3.9	3.7	3.6	3.6	3.65
Sept.—Nov.	4.3	4.2	4.1	4.1	4.0	4.1	4.3	4.0	4.0	4.0	4.0	4.0	4.09
Year	3.50	3.65	3.60	3.72	3.60	3.80	3.82	3.75	3.72	3.67	3.55	3.52	3.66
Smoothed	3.54	3.60	3.64	3.66	3.68	3.75	3.80	3.77	3.71	3.65	3.57	3.52	3.66

In winter and autumn there is no appreciable daily period, but in spring and summer there is a decided maximum about, or some hours after, noon, and a minimum in the early morning hours.

The smoothed numbers for the mean for the year show a very regular daily period with a

Minimum	0.30 a. m.	of 3.52	metres per second
Maximum	2.30 p. m.	„ 3.80	„ - „
Range		0.28	„ - „

CALMS. DAILY PERIOD.

Counting the number of observed *Calms* for each observation-hour and month, and taking the means for each hour (weighted for July, August, September and October), we get the following Table.

January.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	12	7	9	6	3	3	4	8	8	4	7	6	6.4	31
1900	31	30	29	31	29	30	31	31	30	30	30	30	30.2	31
1901	5	7	4	8	6	7	5	6	5	8	8	7	6.3	31
1902	12	14	15	14	14	14	11	12	12	13	14	11	13.0	31
Mean	15.0	14.5	14.3	14.7	13.0	13.5	12.7	14.2	13.7	13.8	14.7	13.5	14.0	

February.

1899	12	7	12	11	12	9	10	10	15	13	9	12	11.0	28
1900	19	17	20	21	23	20	20	21	22	22	22	20	20.6	28
1901	9	8	10	12	10	8	6	8	8	11	12	9	9.3	28
1902	14	12	14	10	11	8	8	9	10	10	10	14	10.8	28
Mean	13.5	11.0	14.0	13.5	14.0	11.3	11.0	12.0	13.8	14.0	13.3	13.8	12.9	

March.

1899	9	14	9	5	9	7	8	12	10	8	15	13	9.9	31
1900	26	22	26	25	28	26	28	28	27	28	27	24	26.8	31
1901	11	11	8	8	9	8	10	10	9	10	7	6	8.9	31
1902	8	9	6	6	9	10	11	9	11	9	12	11	9.3	31
Mean	13.5	14.0	12.3	11.0	13.8	12.8	14.3	14.8	14.3	13.8	15.3	13.5	13.7	

April.

1899	12	12	13	11	9	8	10	10	12	9	13	11	10.8	30
1900	24	25	26	27	24	24	27	24	25	25	25	24	25.0	30
1901	7	11	9	11	11	8	9	6	9	6	7	7	8.4	30
1902	12	13	10	12	6	7	6	7	8	7	9	8	8.8	30
Mean	13.8	15.3	14.5	15.3	12.5	11.8	13.0	11.8	13.5	11.8	13.5	12.5	13.3	

May.

1899	11	9	11	6	4	5	8	4	6	7	8	11	7.5	31
1900	22	23	23	22	24	24	20	17	17	20	21	22	21.3	31
1901	5	5	5	6	4	3	4	1	3	2	2	8	4.0	31
1902	11	11	8	9	6	6	7	4	4	2	6	7	6.8	31
Mean	12.3	12.0	11.8	10.8	9.5	9.5	9.8	6.5	7.5	7.8	9.3	12.0	9.9	

June.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	9	7	5	7	4	6	7	4	10	8	9	9	7.1	30
1900	27	24	23	21	24	23	20	26	17	21	20	20	22.2	30
1901	4	4	4	5	8	6	5	4	2	6	2	4	4.5	30
1902	12	11	12	9	4	4	3	3	2	3	7	8	6.5	30
Mean	13.0	11.5	11.0	10.5	10.0	9.8	8.8	9.3	7.8	9.5	9.5	10.3	10.1	

July.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	5	6	7	8	5	4	5	4	6	2	4	3	4.9	24
1900	21	22	22	18	24	20	17	10	13	15	18	20	18.3	31
1901	4	4	3	3	3	2	4	3	2	2	3	4	3.1	31
1902	5	5	7	6	6	3		2		1	2	2	3.3	20
W. M.	9.4	9.9	10.2	9.0	10.2	7.9	7.3	5.1	5.7	5.6	7.4	8.1	8.0	

August.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1900	6	6	5	5	5	3	3	3	4	6	3	4	4.4	9
1901	6	6	2	3	7	7	6	7	6	5	7	7	5.8	31
W. M.	6.0	6.0	2.7	3.5	6.5	6.1	5.3	6.1	5.5	5.2	6.1	6.3	5.4	

September.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	1	2	2	1	3	4	2	1	2	2	2	1	1.9	12
1900	1	0	1	1	1	0	1	0	2	2	2	1	1.0	13
1901	3	6	4	4	4	5	5	6	6	4	5	5	4.8	30
W. M.	2.1	3.7	2.9	2.6	3.1	3.6	3.4	3.5	4.2	3.1	3.6	3.2	3.3	

October.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	4	8	7	7	6	10	5	6	6	7	10	9	7.1	31
1899	7	7	8	8	8	6	8	7	7	8	7	7	7.3	9
1900	5	8	9	10	5	7	7	7	10	9	10	5	7.7	31
1901	6	6	6	7	7	9	9	7	7	8	8	7	7.3	31
W. M.	5.2	7.3	7.4	8.0	6.2	8.4	7.1	6.7	7.7	8.0	9.1	7.0	7.3	

November.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	18	16	17	17	16	19	17	15	17	19	14	17	16.8	30
1899	27	25	24	27	28	25	23	25	27	26	26	23	25.5	30
1900	4	5	6	5	5	5	4	4	7	4	2	2	4.4	30
1901	11	10	9	10	7	6	6	9	11	9	10	12	9.2	30
Mean	15.0	14.0	14.0	14.8	14.0	13.8	12.5	13.3	15.5	14.5	13.0	13.5	14.0	

December.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	17	15	13	12	13	15	12	14	15	11	11	14	13.5	31
1899	26	26	27	26	24	26	25	25	28	29	28	28	26.5	31
1900	9	10	7	8	10	10	11	9	7	8	8	7	8.7	31
1901	12	9	12	12	13	12	9	11	13	10	8	11	11.0	31
Mean	16.0	15.0	14.8	14.5	15.0	15.8	14.3	14.8	15.8	14.5	13.8	15.0	14.9	

By plotting the means, we find a regular daily period, with a maximum in the night and a minimum some hours after noon, only from April to July. The means for the seasons (Dec.—Febr., etc.) and for the year are

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
Winter	14.8	13.5	14.3	14.2	14.0	13.5	12.7	13.7	14.4	13.1	13.9	14.1
Spring	13.2	13.8	12.9	12.2	11.9	11.4	12.4	11.0	11.8	11.1	12.7	12.7
Summer	9.5	9.1	8.0	7.7	8.9	7.9	7.1	6.8	6.3	6.8	7.7	8.2
Autumn	7.4	8.3	8.1	8.5	7.8	8.6	7.7	7.8	9.1	8.5	8.6	7.9
Year	11.2	11.2	10.8	10.7	10.6	10.3	10.0	9.8	10.4	9.9	10.7	10.7
Smoothed	11.1	11.1	10.9	10.7	10.6	10.3	10.0	10.0	10.1	10.2	10.5	10.8

The numbers for the year give a regular period. The smoothed numbers give a maximum at 3 a. m. and a minimum at 3 p. m.; range 11.1—10.0 = 1.1.

WIND-VELOCITY. ANNUAL PERIOD. M. P. S.

Year	January	February	March	April	May	June
1899	2.84	2.27	2.53	2.35	3.29	4.58
1900	0.07	1.71	0.83	0.88	1.44	1.04
1901	6.79	5.77	5.63	4.59	5.58	5.43
1902	4.21	3.95	6.43	4.83	4.53	3.81
Mean	3.48	3.43	3.86	3.16	3.71	3.71
Sm.	3.36	3.55	3.58	3.47	3.57	3.69

Year	July	August	September	October	November	December
1898			3.33	2.84	1.78	1.96
1899	5.13			0.96	0.60	0.58
1900	1.62	2.30	4.88	4.73	5.94	4.69
1901	4.51	3.90	5.29	5.27	6.06	5.03
1902	3.89					
Mean	3.63	3.58	4.82	4.00	3.60	3.07
Sm.	3.63	3.90	4.30	4.10	3.57	3.31

The smoothed numbers (Sm.) give an annual period with a chief minimum of 3.31 m. p. s. in December, and a chief maximum of 4.30 m. p. s. in September. Range 0.99 m. p. s. There are secondary minima in April and in July, and secondary maxima in March and in June. The mean for the year is 3.67 m. p. s., corresponding to the Beaufort Scale 2.6.

Smoothing the weighted numbers for the mean monthly frequency of *Calms* in the Table on pp. 230 & 231, we obtain the following figures, showing the annual period of the frequency of *Calms*.

January	February	March	April	May	June	
38.5	37.8	38.2	36.3	31.6	27.8	per cent
July	**August**	**September**	**October**	**November**	**December**	
27.3	24.6	21.3	28.2	37.8	39.9	per cent

Annual Mean . . . . 32.4 per cent
Maximum December . . . 39.9 —
Minimum September . . . 21.3 —
Range . . . . 18.6 —

The annual period of the frequency of calms is very nearly the inverse of the annual period for the velocity of the wind.

It appears from the preceding Tables that the velocity of the winds, and the frequency of calms, have varied considerably in the different years, or, as a closer inspection has shown, have been rather different at the various winter quarters.

This is shown by means of the following Table, in which *V* indicates the mean velocity of the month, *W* the prevailing wind-direction, and *C* the percentage of calms.

Rice Strait				Havnefjord				Gaasefjord I				Gaasefjord II			
	V	*W*	*C*		*V*	*W*	*C*		*V*	*W*	*C*		*V*	*W*	*C*
1898 Sept.	3.27	N	8*	1899 Oct.	0.96	NE	80	1900 Sept.	4.87	N	15	1901 Sept.	5.29	N	11*
— Oct.	2.84	N	9	— Nov.	0.60	SE	82	— Oct.	4.73	N	21	— Oct.	5.27	N	14
— Nov.	1.78*	N	**36**	— Dec.	0.58	N	32*	— Nov.	5.94	N	13	— Nov.	6.06	N	27
— Dec.	1.96	N	32	1900 Jan.	0.07*	S	**96**	— Dec.	4.69	N	23	— Dec.	5.03	N	**28**
1899 Jan.	2.84	N	14	— Feb.	1.71	NE	71	1901 Jan.	**6.79**	N	15	1902 Jan.	4.21	N	25
— Feb.	2.27	N	32	— March	0.83	NE	83	— Feb.	5.77	N	24	— Feb.	3.95	N	25
— March	2.53	N	22	— April	0.88	NE	82	— March	5.63	N	**27**	— March	**6.43**	SE	19
— April	2.35	N	29	— May	1.44	SE	68	— April	4.59	N	22	— April	4.83	N	24
— May	3.29	N	20	— June	1.04	SE	69	— May	5.58	N	10	— May	4.53	N	18
— June	4.58	S	20	— July	1.62	SE	58	— June	5.43	N	9*	— June	3.81*	S	18
— July	**5.10**	SW	18	— Aug.	**2.48**	S	47	— July	4.51	N	9*	— July	3.83	N	12
								— Aug.	3.90*	N	16				
Mean	2.98		21.8		1.11		69.8		5.20		17.0		4.84		20.1

The second winter quarters, the Havnefjord, is remarkable for the low velocity of its wind, the great number of calms, and the preponderance of southerly or south-easterly winds. These winds have been prevalent in 6 out of 11 months, while northerly or north-easterly winds prevail only during 5 months.

At the other winter quarters, northerly winds have been prevalent in almost all months. The velocity of the wind is higher, and the frequency of calms less, than at Havnefjord.

GALES AND STORMS.

The number of *days* in the different years and months on which a wind-velocity of 15 metres per second and above were noted at the winter quarters, are

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1898	-	-	-	-	-	-	-	-	0	1	0	0
1899	0	0	0	0	1	0	0	-	-	0	0	0
1900	0	1	0	0	0	0	0	0	0	4	3	0
1901	7	10	6	0	3	2	0	0	3	1	6	5
1902	6	2	10	7	1	0	0	-	-	-	-	-
Mean	3.25	3.25	4.00	1.75	1.25	0.50	0	0	1.00	1.85	2.25	1.25

This gives for the *year* 20.35 days with winds of a velocity of, or above, 15 m. p. s. or 33.55 miles an hour (8 Beaufort Sc.).

The second winter haven, in Havnefjord, from September, 1899, to August, 1900, had only one case of high wind, namely, the 3rd February, 1900, when at 6 p. m. the wind was N, 15 m. p. s. This place, as shown above, had very quiet weather in all seasons.

The Table above shows that there is a well-defined annual period in the frequency of the strong winds. The maximum is in the winter and the beginning of spring (March 4 days); the minimum is in summer; while July and August have no strong winds.

The distribution of the strong winds is shown by the following Table, which gives the number of the directions noted in each month.

	N	NNE	E	ESE	SE	SSE	S	SSW	SW	NW	NNW	Sum
January . . .	8	1								2	5	16
February . .	6				1		3	1	1	2	3	17
March	4	3		3	3	1		1		3	3	21
April										5	3	8
May				1	2	1	2	1				7
June					1							1
September .				2	2	1						5
October . . .					3	3	1			1		8
November . .	4	1	1	2	3		1				1	13
December . .	1				1					2	2	6
Sum	23	5	1	8	16	6	7	3	1	15	17	102
Percentage	22.5	4.9	1.0	7.8	15.7	5.9	6.9	2.9	1.0	14.7	16.7	100

From NE, ENE, WSW, W and WNW, no strong wind occurred.

The most frequent strong winds are from the north quadrant, and North preponderates with 22.5 per cent. The southerly strong winds have their maximum at SE, with 15.7 per cent. Easterly strong winds are rather rare, and of westerly there are none.

A velocity of 20 metres per second has been observed on 9 days, in February, March, April, September and October.

Velocities of 21 to 37 metres per second were measured on 5 days, in February, March and September.

The greatest velocity of the wind was measured on the 25th March, 1902. From midnight to 4 p. m., the anemometer indicated over 22 m. p. s., and for 6 a. m. the journal gives as much as 36.4 as the reading, or the velocity corrected 37.4 m. p. s. (83.7 miles an hour. Beaufort Scale 12).

CLOUD. PRECIPITATION.

The following Tables contain four columns for each month and for each even hour:

1 (Am.) The amount of Cloud, o indicating clear sky, 10 overcast.
2 (Dir.) The direction (from) of the movement of the clouds (true.)
3 (Fm.) the form of cloud.

4 (Pr.) Precipitation in the form of Rain (◉), Snow (∗), Hail (△), Fog (≡), Haze (∞).

The exponent ^{0} indicates slight, the exponent ^{2} strong or heavy.

1898. September.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
19	10				10				10				10^0	E	St-Cu		10	E	St		10	E	St	
20	10	S	St-Cu		10	S	Ci-Cu		10	S	Nb		10^0	S	St-Cu		10^2	S	Nb	$*^0$	10^2	S	Nb	
21	0				0				1^0	N	Ci		1^0	N	Ci		1^0	N	Ci		2	N	Cu	
22	10^2	NW	Nb		10^2	NW	Nb		10		Nb		10	NW	Nb		10	NW	Nb		10^2	NW	Nb	
23	8	NW	St-Cu		3	NW	St-Cu		9	NW	St-Cu		4	NW	Ci-St		5	SE	Cu		3	SE	Cu	
24	8	E	St		5	NE	St-Cu		5	E	St-Cu		8	E	St-Cu		7	NE	St-Cu		9	N	St-Cu	
25	10^2		Nb	$*^0$	9^0	N	St-Cu		2^0	N	St-Cu		2	N	St-Cu		8^2	NE	St-Cu		10		St-Cu	
26	9	NW	St-Cu		9	NE	St		9	NE	St		2^0	N	Ci-St		1				1			
27	0				0				1^0	N	St		1^0	N	St		$0\text{-}1^0$	N	St		0			
28	0				5	NE	St		8	NE	St		10	E	St-Cu		10^2	E	Nb	$*^0$	10	E	St	
29	0				1^0	N	Ci		0				1^0	N	Ci		1^0	SE	Ci		0			
30	6	E	Ci		8^0	E	St		7	E	St		7^0	E	Ci-St		3^0	E	Ci	≡	4^0	E	Ci-St	≡
Mean	5.9				5.8				6.0				5.5				5.6				5.8			

1898. September.

Rice Strait. $\varphi = 78^\circ 46' N.$ $\lambda = 74^\circ 57' W.$

Day	2^h Cloud. Am.	2^h Cloud. Dir.	2^h Cloud. Fm.	2^h Pr.	4^h Cloud. Am.	4^h Cloud. Dir.	4^h Cloud. Fm.	4^h Pr.	6^h Cloud. Am.	6^h Cloud. Dir.	6^h Cloud. Fm.	6^h Pr.	8^h Cloud. Am.	8^h Cloud. Dir.	8^h Cloud. Fm.	8^h Pr.	10^h Cloud. Am.	10^h Cloud. Dir.	10^h Cloud. Fm.	10^h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
19	8	S	St-Cu		3	S	Ci-Cu		4	S	Ci-Cu		4	S	Ci-St		9	S	St-Cu		10	S	St-Cu	
20	10	S	Nb		10	S	Nb		10	S	Nb		9^2	E	St-Cu		6	E	St-Cu		2	N	St	
21	2^2	N	Cu		8	N	St-Cu		10	N	St-Cu		4	N	St-Cu		9^2		Nb		9	NW	St-Cu	
22	10	NW	Nb	$*^0$	10^0	N	Nb	$*^0$	10	N	Nb	$*^0$	10	N	Nb		10	N	Nb		6	N	Ci-Cu	
23	3	SE	Ci-St		3	SE	Ci		2	SE	St		1		Ci		1	E	St		2	E	St	
24	9	NE	St-Cu		10	N	St-Cu		8^0	N	St-Cu		10		St-Cu		10	NW	St-Cu		10			
25	9	NE	St-Cu		9^0	N	St-Cu		10^2	NW	Nb		8^0	SE	St-Cu		5^0		St-Cu		3^0	NW	St	
26	0	N	Ci-St		2^0	N	Ci-St		1^0	N	Ci		0				0				0			
27	0				0				1^0	NE	St		0				0				0			
28	10^2	NE	Nb		10	NE	Nb		10^2	NE	Nb		6	NE	St		0				0			
29	0				1^0	SE	Ci		0				1^0	SE	Ci		5^0	SE	Ci-St		5	E	Ci-St	
30	6^0	E	Ci-St	$\equiv$	5^0	SE	Ci-St	$\equiv$	8^0	SE	Ci-St	$\equiv^0$	2^0	SE	Ci	$\equiv^0$	10		St	$\equiv$	10		St	$\equiv$
Mean	5.6				5.9				6.2				4.6				5.4				4.8			

1898. October.

Rice Strait. $\varphi = 78^\circ 46' $ N. $\lambda = 74^\circ 57'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	10		St	≡	2^2		St	≡°	10^0		Nb	≡°	10^2	S	Nb	≡°	10	S	Nb		8	S	St	
2	10		Nb	*°	10		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°
3	10		Nb	*°	10		Nb	*°	10		Nb	*°	10	S	Nb	*°	10		Nb	*°	10^0		Nb	*°
4	10		Nb		10		Nb	*°	10		Nb		10^0		Nb		10	S	St	*°	10	S	St	*°
5	8		St		10		St		10		St		10		St		8	E	St		9^2	E	St	
6	5	SW	St		3		St-Cu		1^0		Ci		1^0	N	Ci		6^0	N	Ci-St		3^0	N	St	
7	8	S	St		10^2	S	St		10		St		3	SE	Ci-St		3^0	SE	Ci-St		4^0	W	Ci-St	
8	4	NW	Ci		9		St-Cu		10^2	N	Nb		10^2	N	Nb		10	N	Nb		10	N	Nb	
9	10	N	St		10	N	St-Cu		10	N	St-Cu		9	NE	St		8	NE	St-Cu		6	ENE	St-Cu	
10	3		Ci-St		3		Ci		2		Ci		2^0	N	Ci		2^0	N	Ci		2^2		St	
11	10		Nb	*°	10^2		Nb	*	10^2	S	Nb	*°	10^2	S	Nb	*	10^2		Nb	*	10^2		Nb	*
12	0				5^0	S	Ci		8^0	S	Ci		10^0	S	Ci-St		9	S	St-Cu		3^0	S	St	
13	0				0				1^0	S	St		9^0	S	St-Cu		7	S	St-Cu		9^0	S	Ci-St	
14	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*	10^2		Nb	*	10^2		Nb	*
15	10		Nb	*°	10		Nb	*°	10				10		Nb	*	10		Nb	*	10		Nb	*
16	0				0				0				0				0				0			
17	0				1^0		St		10^0		St		10^0	NW	St		10		St		6^0		Ci-St	
18	10		Nb		10		Nb		10		Nb		10	W	St		8^0	W	St		10^0		St	*°
19	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	
20	0				0				0				1^0	N	St		2^2	N	St		2	N	St	
21	0				0				0				2	NE	St-Cu		3^0	NE	Ci-St		2^0	N	Ci	
22	10		Nb		10		St		10		St		10		St-Cu		10^2		Nb		10		Nb	
23	10		Nb		10		St		10		St		10		St		10		St		10	N	St	
24	10		St		10		Nb		10		Nb		10		St		10	N	Nb		10	N	St	
25	10		Nb	*°	10		Nb	*°	10		Nb		10	N	St-Cu	*°	10	N	Nb		10	NE	St-Cu	
26	9		St		10		St		2^0		St		7^0	NE	St-Cu		10^0	N	St		10	N	St	
27	0				7^0				8^0				0				1^0		St		0			
28	4^0		St		0				2		Ci		3^0	E	Ci-St		1	E	Ci		7^0	E	Ci-St	
29	0				4^0	E	Ci-St		5^0	E	St		8^0	E	St-Cu		3^0	E	St		4^0	E	S	
30	5	NE	St		4^0	NE	St		0				0				2^0		St		6			
31	6^0	S	Ci-St		0				0		St		0		St		0				1^0		Ci	
Mean	6.2				6.4				6.8				7.0				7.0				6.6			

1898. October.

Rice Strait. $\varphi = 78^{\circ} 46' N.$ $\lambda = 74^{\circ} 57' W.$

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Midt. Cloud. Am.	Dir.	Fm.	Pr.
1	8	S	St-Cu		10^{2}		Nb	$*^{\circ}$	10^{2}		Nb		10^{2}	NE	Nb	$*^{\circ}$	10^{2}		Nb		10		Nb	
2	10	S	Nb		10^{2}		Nb	$*^{\circ}$	10^{0}	S	Nb	$*^{\circ}$	10	S	St	$*^{\circ}$	10		Nb	$*^{\circ}$	8		Nb	$*^{\circ}$
3	10^{0}		St		10		Nb	$*^{\circ}$	10^{0}		Nb	$*^{\circ}$	10^{0}		Nb		10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$
4	10^{2}	S	Nb	$*^{\circ}$	10^{2}		Nb	$*$	10^{2}		Nb	$*$	10^{2}		Nb	$*$	10^{2}		Nb	$*$	10^{2}		Nb	$*$
5	10^{0}	N	St-Cu		6	S	Ci-St		10	SW	St-Cu		10^{2}	SW	Nb	$*^{\circ}$	7	SW	St-Cu		3		Cu	
6	3^{2}	N	St		1	N	St		1^{0}	N	St		3^{0}	S	Ci-St		10		St		10		St	
7	3^{0}		Ci-St		5	N	St		9	N	St-Cu		8	N	St-Cu		3^{2}	N	St-Cu		2^{0}	N	Ci	
8	10	N	Nb		10	N	Nb	$*^{\circ}$	10^{2}	N	Nb		10	N	Nb		10	N	Nb		10	N	St	
9	10^{0}		St		10^{0}		St		3^{0}		St-Cu		6		St-Cu		2^{0}		St		3		St	
10	8^{2}	S	St	$*^{\circ}$	9^{2}	S	St		10	S	Nb	$*$	10^{2}		Nb	$*^{\circ}$	10^{2}		Nb	$*$	10		Nb	$*^{\circ}$
11	10^{2}	S	Nb	$*^{\circ}$	10	S	Nb		10	S	St-Cu		6	S	St-Cu		0				0			
12	3	N	St		10	N	St		1^{0}	N	St		0				0				0			
13	10^{0}	S	St		10^{0}		St		10		St		10		St		10		Nb		10		Nb	$*^{\circ}$
14	10	SSW	Nb	$*$	10^{2}		Nb		8	S	St-Cu		2^{2}	SE	St		1	SE	St		0			
15	6^{2}	S	Ci-St		8^{2}	SE	St		6	SE	St		6		St		2		St		0			
16	$0\text{-}1^{0}$	N	Ci		0				0				0				0				0			
17	9^{0}		Ci-St		10^{0}		St	$\equiv^{\circ}$	10^{0}		St		10		St		10		St		10		Nb	
18	10		Nb		10^{2}		Nb		10		Nb		10		Nb		10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$
19	8	N	St-Cu		9		St-Cu		10		St		10		Nb		10		Nb		0			
20	1^{0}	N	St		2^{0}	N	Ci-St		10	N	St		1	N	St		4		St		2		St	
21	3^{0}	N	Ci		$0\text{-}1^{0}$	N	Ci		$0\text{-}1^{0}$	N	Ci		0				0				0			
22	9	NE	St		10		St		10		St		10		St		10		St		10		Nb	
23	10	N	Nb		10	N	Nb		10	N	Nb		10	N	Nb		10		St		10		St	
24	8	N	St		10	N	St		3^{0}	N	Ci-St		0				10		St		10		Nb	$*^{\circ}$
25	10	N	Nb	$*^{\circ}$	10	N	St		10	N	St		9	N	St-Cu		2^{0}	NE	St		9		St	
26	6	N	St		5	N	Ci-St		3^{0}	N	Ci-St		0				0				0			
27	0				0				0				0				0				5^{0}		Ci-St	
28	8^{0}	N	St		3^{0}	N	St		$0\text{-}1^{0}$		Ci		1^{0}	W	St		2^{0}	E	St		0			
29	9	E	St-Cu		3^{0}	NE	St		2^{0}	NE	St		4^{0}	NE	Ci-St		6^{0}	NE	Ci-St		6	NE	Ci-St	
30	10	SE	St-Cu		4^{0}	SE	St-Cu		6	SE	St-Cu		6^{0}	S	Ci-Cu		8	SW	St-Cu		5^{0}	S	Ci-St	
31	0				3		Ci-St		1^{0}		Ci-St		0				1^{0}		St		0			
Mean	7.2				7.1				6.6				5.9				5.7				5.3			

1898. November.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	$3\text{-}1^0$		St		4^0		St		0				3^0	N	Ci-St		9^0	N	St		7^0	N	St	
2	0				4^0	N	St		8	N	St		7^0	NE	St		7	E	St		1^0	E	Ci	
3	10^0		Ci-St		10		St-Cu		10^0	NE	Ci-St		10	N	St		10	N	St		10	N	St	
4	0				0				0				$0\text{-}1^0$		Ci		0				0			
5	0				2^0		St		$2\text{-}3^0$		St		7^0		St		10^0	W	St-Cu		9		St-Cu	
6	10^0		St-Cu		10^0		Ci-St		10^0		St		10^0		St		10^2		Nb	*°	6	W	Ci-St	
7	3^2	E	Ci-St		2^0		Ci-St		1^0		Ci-St		4^0		St		10^0		Nb	*°	10^0		St-Cu	
8	0				0				0				0				0				1		Ci-St	
9	0				0				9		Nb		3^0	E	St		9	SE	St		9	S	St	
10	0				3^0		Ci-St		0				0				4		Ci		4		Ci	
11	0				0				0				1^0		St		1		St		1		St	
12	0				0				0				0				0				2		St	
13	0				0				0				3^2	E	St		4		St		1	E	St	
14	0				0				0				0				0				0			
15	0				0			∞°	0				0				0			∞°	2^0	W	St	∞°
16	0				0				0				0				1^0	E	St		0			
17	0				0				0				0				10^0	E	St	*°	10		Nb	*°
18	10		Nb	*°	0				0				0				0				0			
19	0				0				0				3	SE	St		10		St-Cu		10		Nb	
20	0				1		St		0				0				0				3^0		St-Cu	
21	0				0				0				2		St		9	S	St		10	N	St	
22	6		St		10		St		10		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	
23	10		St		10		St		10		St		10		St	*°	10		Nb	*°	10		Nb	*°
24	1^0		Ci-St		3^0	S	Ci-St		8		Ci-St		3		Ci-St		2	NE	St	≡	4	NE	St	
25	0				0				0				0				3^0	NE	Ci-St		6^0	NE	Ci-St	
26	6	S	Ci-St		6	S	St		4	S	Ci-St		5^0	S	Ci-St		4		St		3		St	
27	0				1^0	N	Ci		1^0	N	Ci		3^0	N	Ci-St		0				0			
28	10		Ci-St		10		St		10		St		10	N	St	*°	10		St		10		St	
29	1		St		2		St		0				0				0				0			
30	8		Ci-St		3^0		Ci		0				0				0				0			
Mean	2.6				2.7				2.8				3.2				4.8				4.1			

1898. November.

Rice Strait. $\varphi = 78^{\circ} 46' N.$ $\lambda = 74^{\circ} 57' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	6^0	N	St		10	N	St		1	NNE	Ci		0				3^0	NE	St		2	N	St	
2	2^0	E	Ci		6	NE	St-Cu		10			≡	10		St	≡	6		St		10^0		St	
3	10^0	N	St		10^0	N	St		2^0	N	St		3^0	NE	St		3^0	NE	St		3^0	N	St	
4	0				0				0				0				0				1^0		Si	
5	2^0	W	Ci-St		1	W	St-Cu		0				0				1	NE	St		0			
6	3^0		Ci-St		6		Ci-St		0				4^2		St	*°	1^2	N	St		2		St	
7	5		Ci-St		1^0		Ci-St		0				0				0				0			
8	0				1	S	Ci		0				0				0				0			
9	10	S	St-Cu		10		St-Cu		5			∞°	0				0				0			≡
10	3		Ci		1		Ci		0				0				1	WSW	Ci-St		1	WSW	St	
11	4		St		5		St		0				0			∞°	0				0			
12	0				0				0				0				0				0			
13	1	E	St		1^0	E	St		0			∞°	0				0				0			
14	0				0				0				0				0				0			
15	2^0		St		1	NW	St		0				0				0				0			
16	0				0				0				0				0				0			
17	10		Nb	*°	6		St		9		St-Cu	∞°	6		St	*°	3		St	*°	9		Nb	*°
18	0				0				0				0				0				0			
19	8	E	St		2		St		2		St		2		St		0		Nb		0			
20	6		St-Cu		1		St		1		St		1		St		1		St		0			
21	10	S	Nb		10^2	S	Nb	*°	10	S	Nb	*°	10	S	Nb		10		Nb	*°	0			
22	10		Nb		10		Nb		10		Nb		10		St		10		St		10		St	
23	10	N	St		10	N	St		7^0	S	Ci-St		8^0	S	Ci-St		6^0	S	Ci-St		0			
24	3	NE	Ci-St		0	NE			0	NE			0				1	NE	Ci-St		0			
25	4^0	SE	Ci-St		3^0	SE	Ci-St		7	SE	St	≡	6^0	S	St	≡	7^0	S	St		6	S	St	
26	5^0		Ci		0				0				2^0		Ci-St		3^0		Ci-St		1^0		Ci-St	
27	0				0				0				5^0	NE	Ci-St		5^0	NE	Ci-St		8^0		Ci-St	
28	10		St		10^0		Nb	*°	10		Nb	*°	10	NE	Nb	*°	10		Nb	*°	4		St	
29	0				0				1^0	NW	Ci-St		3^0	NW	Ci-St		2^0	W	Ci-St		3^0	W	Ci-St	
30	0				0				0				0				0				0			
Mean	4.1				3.1				2.5				2.7				2.4				2.0			

1898. December.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Dir.	2h Fm.	2h Pr.	4h Cloud. Am.	4h Dir.	4h Fm.	4h Pr.	6h Cloud. Am.	6h Dir.	6h Fm.	6h Pr.	8h Cloud. Am.	8h Dir.	8h Fm.	8h Pr.	10h Cloud. Am.	10h Dir.	10h Fm.	10h Pr.	Noon Cloud. Am.	Noon Dir.	Noon Fm.	Noon Pr.
1	0				0				0				0				0				0			
2	0				0				0				0				0				0			
3	7^0	W	Ci-St		9^0	N	Ci-St		0				0				1^0	N	Ci-St		8		St	
4	5^0		Ci-St		0				0				2^0	N	Ci-St		0				0			
5	0				5		St		4^0		Ci-St		4		St		3		St		5		St	∞^0
6	0				0				0				0				0				0			
7	0				0				0				0				0				0			
8	0				0				0				0				1^0		St		3		Ci-St	
9	0				0				0				1	S	St		0				0			
10	0				0				0				0				3^0		St		1^0		St	
11	0				0				0				0				0				0			
12	0				0				0				0				0				0			
13	0				0				0				0				0				0			
14	0				0				0				0				0				0			
15	0				0				0				0				0				0			
16	0				0				0				0				0				3^0		St	
17	0				0				0				10	SW	St		3^0	SW	Ci-St		2^0		St	
18	0				0				0				0			∞^0	3^0		St		3^0		St	
19	0				0				0				0				0				0			
20	0				0				0				0			∞^0	0				0			
21	0				0				0			∞^0	0			∞^0	0				0			
22	0				0				0				0				0				0			
23	0				0			∞^0	0			∞^0	6		St	∞^0	7		St	$*^0$	10		St	$*^0$
24	0				0				0				0			∞^0	0				0			
25	10		Ci-St		10		Ci-St		10	N	Ci-St		10^0		Ci-St		5	N	Ci-St		4^0	N	Ci-St	
26	0				0			∞^0	2	N	Ci		3^0	E	Ci		5^0		Ci-St		10^0		Nb	∞^0
27	5^0	NE	St		3^0	NE	St		5^0	NE	Ci		8^0	NE	Ci-St		10^0	NE	St		10	NE	St	
28	3		Ci-St		3		Ci		3^0	N	Ci		4^0	N	Ci		3				2^0	N	Ci	
29	0			∞^0	0				1		St		0				3		Ci-St	∞^0	2		Ci	∞^0
30	0				1	E	Ci		1		Ci		2	W	Ci		3		Ci-St		2		St	
31	0				1		St		2	E	Ci-St		1^0		Ci	∞^0	1^0	E	Ci		0			$\equiv$
Mean	1.0				1.0				0.9				1.7				1.7				2.1			

1898. December.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				0				0				0				0			
2	0				0				0				0				0				0			
3	6^0	E	Ci-St		2^0	E	Ci-St		0				2^0	E	Ci		3^0	E	Ci		4^0		Ci-St	
4	0				0				0				0				2^0		Ci-St		1		Ci-St	
5	3	S	St	∞°	1		St	∞°	2		St	∞°	0				0				0			
6	0				0				0				0				0				0			
7	0				0				0				0				0				0			
8	1		St		2		St		0				2		St		0				0			
9	1^0	S	St		0				0				0				0				0			
10	3^0		St		3		St		0				0				0				0			
11	1^0	NE	St		0				0				0				0				0			
12	0				0				0				0				0				0			
13	0				0				0				0				0				0			
14	0				0				0				0				0				0			
15	0				0				0				0				0				0			
16	0				0				0				0				0				0			
17	2^0	S	St		0			∞°	0				0				0				0			
18	6		St		5		St		5		St		0				0				0			
19	0				0				0				0				0				0			
20	0				3^0		Ci-St		0				7^0	N	Ci		1		Ci-St		0			
21	0				0				0				1	E	St		0				0			
22	0				0				0				1^0		Ci-St		0				0			
23	2^0	S	Ci		3^0	S	Ci-St		4	S	Ci-St		4	S	St		1^2		St		1		St	
24	1		St		1		St		1			∞°	1		St		10^0		Nb	∞°	10^0		Ci-St	
25	1^0	N	Ci		1	N	Ci		0				2^0	N	Ci		10^0	N	St-Cu		0			∞°
26	10^0			∞°	5^0		St		5^0		St		10^0		St		10^0		Ci-St	∞°	3^0	NE	Ci-St	
27	4^0	N	Ci		3^0	N	Ci		0				0				0				4		Ci-St	
28	3		St		0				3		St		3		Ci-St		3^0		Ci-St		10^0			∞°
29	2^0	W	Ci		0			∞°	0				0				3		Ci-St		3^0		Ci	
30	1		St		2^0		Ci-S		0				0				0				0			
31	0			∞°	0		t	∞°	0				0				0			∞°	0			
Mean	1.5				1.0				0.6				1.1				1.4				1.2			

1899. January.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	1		Ci		0				0				0				1		St		1		St	
2	0				0				0				0				0				0			
3	0				0				0				0				0				3^0		St	
4	0				0				0				0				0				0			
5	0				0				5^0		Ci-St		10		St	$\ast^0$	10		Nb	$\ast^0$	10		Nb	
6	0				0				0				0			∞^0	0				0			
7	0				0				0				0				0				0.5		St	
8	0				0				0				0				0				1^0	E	Ci	
9	0				0				0				0				0				0			
10	0				0				0				0				0				0			
11	0				0				0				0				0				1		St	
12	0				0				0				0				0				0			
13	0				0				0				1^0	S	Ci-St		2^0		Ci-St		3^0		Ci-St	
14	0				1				1	N	St		0				0				2^0		St	
15	0				0				0				1^0	E	Ci-St		2^0		Ci-St		3^0		Ci-St	
16	0				0				0				2^0		Ci-St		2		Ci-St		5^0		Ci-St	
17	0				0				0				4^0	E	Ci-St		6		St	∞^0	4		St	
18	0				0				0				2^0		Ci		1^0	E	Ci		2^0	E	Ci	
19	3	NW	St		5		Nb	$\ast^0$	9		Ci-St		10		St	$\ast^0$	0			∞^0	5	S	St	∞^0
20	0				0				0				0				0				0			
21	3^0		Ci-St		2^0		Ci-St		3	N	Ci-St		4	N	Ci-S		4^0		Ci-St		1^0		Ci-St	
22	0			∞^0	0			∞^0	3		St	∞^0	8		St	$\ast^0$	6^0		Ci-St		4		Ci-St	
23	2			∞^0	1		Ci		1^0		St		1^0		Ci	∞^0	1^0		St	∞^0	1^0		St	∞^0
24	3^0		Ci	∞^0	0			∞^0	2^0		St		10^0		St	∞^0	10^0		St	∞^0	4^0		Ci-St	
25	2		Ci		0				0				0				0				0			
26	0				0				0				1^0	NW	Ci		0				0			
27	0				0				0				0				0				0			
28	1		St		8		St		2		St		5	E	St		8		St		10		St	
29	8	N	Ci-St		10^0	SE	Ci-St		5		Ci-St		3	N	St		2		St		3^0		St	
30	0				3^0	NW	Ci		1^0		Ci		1^0		Ci-St		0-1		Ci		$0\text{-}1^0$		Ci	
31	0				2		St		0			∞^0	10		Nb	$\ast^0$	10		Nb		10		Nb	
Mean	0.7				1.0				1.0				2.4				2.1				2.4			

1899. January.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	1		St		0				0				0				0				0			
2	0				0				0				1^0		St		0				0			
3	0.5		St		2		St		3		St		10		St		10		St		3		St	
4	0				0				0				0				0				0			
5	4		St		1		St		0				0				0				0			
6	0				0				0				0				0				0			
7	0				0				0				0				0				0			
8	2^0	W	St		1^0	W	St		0				0				0				0			
9	0				0				0				0				0				0			
10	0				0				0				0				0				0			
11	1		St		0				0				0				0				0			
12	0				0				0				0				0				0			
13	5^0		Ci-St		3^0		Ci-St		0				0				0				0			
14	1^0	N	St		0				0				0				0				0			
15	5^0		Ci-St	∞^0	1^0		Ci-St		1^0		Ci-St		0				0				0			
16	3^0	E	Ci-St		2^0	E	Ci		1	E	Ci		0				0				0			
17	1^0		St		3^0		St		2^0		St		3^0		Ci-St		2^0		Ci-St		0			
18	7	E	St		8	E	St		10	E	St		3^0	E	St		1^0		Ci		2	NW	St	
19	6		St		1^0		St		2^0		Ci-St		0				0				0			
20	1	N	St		1^0	N	St		2	N	St		1^0	N	St		1^0	N	St		2		St	
21	3		St	∞^0	5		St	∞^0	0			∞^0	3	N	Ci	∞^0	2			∞^0	1			∞^0
22	2	N	Ci		1		Ci-St		2		Ci		4^0		Ci-St	∞^0	4				3		Ci-St	∞^0
23	1^0		St	∞^0	2^0		Ci-St		2^0		Ci-St		2^0	E	Ci-St		3^0		Ci-St		2	N	Ci	
24	1^0	N	Ci		0				2^0	E	Ci		1	E	Ci		1^0	E	Ci		1		Ci	
25	0				0				0				0				0				0			
26	0-1^0		Ci		1^0		Ci		0				0				0				0			
27	0				0				0				0				1^0		St		0			
28	10	SE	St		10		Nb		10	SE	Ci-St		10		Nb		10		Nb		10		Nb	
29	4		St		0				0				0				0				0			
30	0-1^0	N	Ci		0				0				0				0				0			
31	10		Nb		10		Nb	$*^0$	2		St		0			∞^0	0				0			∞^0
Mean	2.3				1.7				1.3				1.2				1.1				0.8			

1899. February.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	3		St	∞^0	0			∞^0	0			∞^0	2-3		St	∞	1^0	N	St		1^0	N	St	
2	2		St		2		St		3	N	St		6		St		3		St		1		St	
3	0				0				0				0				0				1	NW	St	
4	5		St		3^0		St		0			∞^0	2^0		St		10^0		St		4^0		St	
5	0				2		St		0				1^0	E	Ci-St		1^0	E	Ci-St		0			
6	10			∞^0	0				0				1^0	N	St		3^0		St		5^0		Ci-St	
7	0				0				0			∞^0	2^0	N	St		1^0	N	St	∞^0	0			
8	0				0				0				0				0				0			
9	0				0				0				10	SW	St		10	SW	St		10		St	
10	0				0				4		St		10		Ci-St		10	NE	Ci-St		10^0	NE	Ci-St	
11	0				0				0				5		St		2^0	NE	St		2^0	NE	St	
12	0				0				0				0				1^0		St		0			
13	10		St		10		St		10		St	∞^0	10		St		4^0		St	∞^0	1^0		St	
14	0				0				0				1		St		5^0		St		3^0		St	
15	0				0				1		St		3^0		St		$0\text{-}1^0$		A-St		1^0		St	
16	10		St		3^0		St		2^0		St		1		St		0				1^0		St	
17	2	S	St		6		St-Cu		8	S	St		10	S	St-Cu		8	S	Ci-St		4^0	S	Ci	
18	0				0				0				5		Ci-St		10		St		10^0		St	
19	10		Ci-St		10		Ci-St		9	E	Ci-St		7		St-Cu		0				3^0	E	Ci-St	
20	0				0				0				0				0				1		Ci-St	
21	0				3^0	SE	Ci-St		2		St		2^0		St-Cu		3^0		St-Cu		8^0	SE	St-Cu	
22	8		Ci-St		5		Ci		1^0		St		0				2^0		Ci-St		4^0		Ci-St	
23	0				0				1		St		1		St		$0\text{-}1^0$	S	Ci		1^0	S	St	
24	1^0	S	Ci		1^0		St		1^0		Ci-St		0				6^0		Ci-St		10		Ci-St	
25	10^0		Ci-St		3^0	S	Ci-St		8^0		Ci-St		5^0		St		6^0	S	St		3^0	S	Ci-St	
26	10^0	N	Ci-St		6	N	St		1^0	N	Ci-St		4	N	Ci-St		1^0	N	Ci		1^0	N	Ci	
27	0				0				0				$0\text{-}1^0$	E	Ci		2		Ci		3		Ci-St	
28	6				0				$0\text{-}1^0$		Ci		0				0				0			
Mean	2.9				1.9				1.9				3.2				3.3				3.1			

1899. February.

Rice Strait. $\varphi = 78^\circ 46' N.$ $\lambda = 74^\circ 57' W.$

Day	2h				4h				6h				8h				10h				Midt.			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0·1°	N	Ci		0				0				0				2°		St		3°		St	
2	1°		Ci-St		1°		Ci-St		0				0				0				0			
3	5	W	Ci-St		6		St	∞°	10		St		10²		Nb	✻°	10²		Nb		10		St	
4	10°		St		10°		Ci-St		2		Ci-St		1		St		0				0			
5	1·2°	E	Ci		0				0·1°	N	Ci		0·1°	N	Ci		0				0			
6	5°		Ci-St		4°		Ci-St		0				0				0				0			
7	0				0·1°	SW	St		0				2°	W	St		0				0			
8	3°		Ci-St		6°		Ci-St		0				0				0				0			
9	10°		St		5	N	St		10	N	Nb	✻°	4		St	∞°	0			∞°	0			
10	2		Ci-St		2		Ci-St		1		St		1		St		1		St		1		St	
11	1°	NE	St		0			≡²				≡²	0			∞°	0			∞°	0			
12	0				0				0				0				0				10		St	
13	0				0				0				0				0				0			
14	5°		Ci-St		3°		Ci-St		0				0				2°		St		1		St	
15	0				9°	S	St		4°	S	Ci-St		10	S	St		10		St	✻	10		St	
16	10		St		0				0				0				0				0			
17	3°	S	St-Cu		0				0				3°	NE	St		0				0			
18	8°		Ci-St		10		Ci-St		10		Ci-St		7	SE	St-Cu		10		St-Cu		10		St-Cu	
19	3°	S	Ci-St		4°	S	Ci-St		0				0				0				0			
20	2°		St		4°		St		4°		St		0·1°		Ci		0				0			
21	4°	SE	Ci-St		4°	SE	Ci-St		2°	SE	St		0				1°		St		3	SE	St	
22	1		St		0				0				0				0				0			
23	1°		A-St		0				0				0				1°	S	St		1°	S	Ci	
24	4°		Ci-St	∞°	10		Ci-St	∞°	10°		Ci-St	∞°	4°	S	Ci-St		4°		Ci-St		6°		Ci-St	
25	7	S	St		10		St	∞°	10		St	∞°	10	S	St		0·1°		Ci		5			
26	0				0				0				0				0				0			
27	4°		Ci-St		5		Ci-St		5		Ci-St		0				0				0			
28	0				0				0				0				0				0			
Mean	3·3				3·4				2·5				1·9				1·5				2·1			

1899 March.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	0				0				0			
2	0				0				0			
3	0				0				0			
4	0				0				0			
5	0				0				1	N	Ci	
6	0				0				0			
7	0				0				0			
8	0-1		St		3°				10	N	St-Cu	
9	3		St		0				0			
10	0				0				0			
11	0				0				0			
12	0				1°		Ci		0			
13	0-1	NE	St		0-1		St		0-1		St	
14	0				0				0			
15	0				0				0			
16	0				0				0			
17	0				0				0			
18	0				0				0			
19	0				0				0			
20	0				0				3°	S	Ci	
21	10		Nb	*°	10		Nb		10		St	
22	1		St		0				0			
23	0				0				0			
24	4		Ci-St		1		Ci-St		2			
25	0				0				0			
26	0				0				0			
27	0				0				0		Ci-St	
28	3	N	Ci-St		2	N	St		4°	N	Ci-St	
29	0				0				3		Cu	
30	1°		St		0				0			
31	0-1		Ci		1		Ci		4		St	
Mean	0.8				0.6				1.2			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0			
2	0				0				0			
3	0				0				0			
4	0				0				5	NE	St	
5	3°	N	St		5		Ci-St		2		Ci-St	*°
6	0				0				0			
7	2	E	St		5		Ci-St		2		Ci-St	
8	10	N	St-Cu		3	NE	St-Cu		2°	E	St	
9	0				10		St		1°		St	
10	10°		Ci-St		8°	E	St		2°	E	Ci-St	
11	8°		St		4°		Ci-St		1°		Ci-St	
12	0				0				0			≡
13	2	NE	St-Cu	∞°	3°	NE	Ci-St		2°	NE	Ci-St	∞°
14	3°	E	Ci		6°	E	Ci-St		5°	E	Ci-St	
15	1-2	SE	St		1		Ci-St		0			
16	2°	NE	Ci-St		0-1°	N	Ci		0			
17	0				0				0			
18	0				0				0			
19	0				0				6°	SE	Ci-St	
20	4°	S	Ci-St		7	S	Ci-St		8	S	St-Cu	
21	10°		St	∞°	10		St	∞°	10		St	∞°
22	2	NE	St		0-1	NE	Ci		0			
23	1°	S	St		1°		Ci-St		0-1		Ci-St	
24	3°		St		5	S	St		9	S	St	
25	0				0				0			
26	0-1	N	St		0-1	N	St		0			
27	6°	SW	Ci-St		2°		Ci -St		1°		Ci-St	
28	3°	N	Ci-St		1°	N	Ci		0-1°	N	Ci	
29	5°	S	Ci-St		3	S	Ci-S		3°		Ci-St	
30	0-1	NE	Ci		0				0			
31	10°		St-Cu	∞°	10°		S	∞°	10		St	∞°
Mean	2.8				2.8				2.3			

1899. March.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$

Day	2h				4h				6h				8h				10h				Midt.			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0-1°		Ci		0				0				0				0				0			
2	1°	S	Ci		0				0				0				0				0			
3	0				0				0				0				0				0			
4	4	NE	St		2	N	St		1°	N	St		2	N	St		0				0			
5	4°	N	Ci-St		1°		Ci-St		1°		Ci-St		0				0				0			
6	0				0				0				0				0				0			
7	3		Ci-St		10°		Ci-St		10		Ci-St		3°		St		2		St		1°		St	
8	3°	E N	Ci-St		0				0				0				0				0			
9	3°		Ci-St		10°		Ci-St		4°		Ci-St		0				0				0			
10	3°	E	St		10	E	Nb	*°	3°	E	St		1°		St		0				0			
11	0				3°		Ci-St		1°		Ci-St		0				0				0			
12	0				0				0				0				0				0			
13	4	NE	Ci-St		8°	NE	Ci-St		7°	NE	Ci-St		3°	W NE	Ci-St		0				0			
14	2°	E	Ci-St		1°	E	Ci		0				0				0				0			
15	2°		Ci-St		6°		Ci-St		3		St		1°		Ci		0				0			
16	0				0				2	NE	St		1		Ci-St		1°	NE	Ci		1°		Ci	
17	0				0				0				0				0				0			
18	0				0				0				0				0				0			
19	3°		Ci-St		10°		Ci-St		8°		Ci-St		6°		Ci-St		0				0			
20	9	S	St-Cu		8	SW	St-Cu		10	S	St-Cu		10		St		10°		Nb	*°	10		Nb	*°
21	5		Ci-St		7°		Ci-St		10		Nb	*°	10		St-Cu		5		St		0-1		St	
22	0				0				0				0				0				0			
23	1°		St		1°		Ci-St		10		St		0				2°		Ci-St		2		St	
24	9	SW	St-Cu		8	SW	St-Cu		8	SW	St-Cu		5°	SSW	Ci-St		1		St		0			
25	0				0				0				0				0				0			
26	1°	E	Ci-St		0				2°	NE	St		0				2		St		0-1		St	
27	1°		Ci-St		0				0-1°		St		1°	SW	St		6°		St		2-3	N	St	
28	1°	N	Ci-St		0	N			0				0				0				0			
29	0-1°		Ci-St		3°		Ci-St		9°		Ci-St		5°		Ci-St		1		St		0			
30	0				0				4°		Ci-St		2°		A-St		1°		A-St		3		A-St	
31	10°		St	∞°	10		Nb	∞°	10		Nb	*°	10		Nb	*°	10		Nb	*°	8		St	*°
Mean	2.3				3.2				3.4				1.9				1.3				1.0			

1899. April.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	6		St		5		St		3		Ci-St		2	NE	Ci		4°	NE	Ci		2°	NE	Ci	
2	3				2	N	Ci-St		0·1	N	St		1·2°	N	St		1		Ci-St		2		Ci-St	
3	0				0				0·1		St		0				0				0			
4	0				0				1°		St		2°	N	Ci-St		3°		Ci-St		9°		Ci-St	
5	10		Nb	*°	10		Nb	*°	10		Nb	*°	10	SW	Nb	*°	10	SW	Nb	*°	10	SW	Nb	*°
6	1°	SW	St		1	SW	Ci		1·2	SW	Ci-St		3	SSW	St-Cu	∞°	8°	SSW	Ci-St	∞°	6°		Ci-St	∞°
7	10^2		Nb		10		St	*°	10		Nb	*°	10		Nb	*	10	N		*	10		St	*°
8	10		Nb		9		St		9		St		10°		St	∞°	10°	S	Ci-St	∞°	10°	S	St	∞°
9	10	S	St		3	S	St		3	S	St		8	S	Ci-St		7	S	Ci-St	∞°	6	S	Ci-St	∞°
10	8	S	St	∞°	5°	S	St		5°	S	Ci-St		9	S	St	*°	9	S	Ci-St	∞°	8°	S	Ci-St	
11	10		Nb	*°	10		Nb	*°	10°		St-Cu		10		Nb	*°	10		Nb	*°	10		Nb	*°
12	2		Ci-St		4		Ci-St		7		Ci-St		5°	SW	St-Cu		3°	SW	St		2°		Ci-St	
13	10		St		10		St		10		St		10	W	St-Cu		10^2	W	Nb		10	W	St-Cu	
14	5	S	St-Cu		8	S	Ci-St		6°	S	Ci-St		4°	S	Ci-St		5°	S	Ci-St		8°	S	Ci-St	
15	10°	SW	St		6°	SSW	Ci-St		2	SW	Ci		0·1°	SW	Ci		0				1°	SW	Ci	
16	10^2	SW	St	*°	10		St	*°	10^2		Nb	*°	10		Nb	*°	7°		St		10		St	*°
17	10		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10		Nb	*°	10		Nb	*°
18	0				0				0				0				2		Ci-St		1°		Ci-St	
19	5		Ci-St		4		St		2		Ci-St		6°	W	Ci-St		5°	W	Ci-St		6°	W	Ci-St	
20	3°	SW	Ci		3°		St		2°		Ci		1°		Ci		3°		Ci-St		3°		Ci-St	
21	4°		Ci-St		4°		Ci-St		4°		Ci-St		3°	N	Ci-St		2°	N	Ci		3°	N	Ci	
22	0				0				0				0				0				0			
23	0				1°		Ci-St		2°		Ci-St		3°	E	Ci-St		0				0			
24	2°	E	Cu		1°		Cu		0				0				1		Ci		0			
25	0·1		St		0				0				0				0				0			
26	2	S	St-Cu		3	SSW	St-Cu		3	SSW	St-Cu		4	SSW	St-Cu		8	S	St-Cu		5	S	St-Cu	
27	0				0				0·1		Ci-St		0·1		Ci-St		0·1		Ci		3°	E	Ci-St	
28	9		St-Cu		10	SE	St-Cu		9	SE	St-Cu		10	SE	St-Cu		10^2	SE	Nb		10	ESE	St-Cu	
29	10		Nb		4		Ci-St		2		Ci-St		3	SE NNE	Ci-St		5	N	Ci-St		10	N	St-Cu	*°
30	10	NE	St		4	NE	Ci-St		4	NE	Ci		5°	NE	Ci-St		3	NE	Ci-St		0·1		Ci	
Mean	5·3				4·6				4·3				4·7				4·9				5·2			

1899. April.

Rice Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Midt. Cloud. Am.	Dir.	Fm.	Pr.
1	3°	NE	Ci-St		4	NE	St		3	NE	St		3	E	St		4°	E	St		3			
2	2°	N	Ci-St		1°	N	Ci-St		1°	N	Ci-St		1	N	St		2°		St		0			
3	0				0				0				0				0				0			
4	8°	SW	Ci-St		4°	SW	Ci-St		8°	SW	Ci-St		7	SW	St-Cu	*°	9		Ci-St	*°	10	N		*°
5	10°	SSW	Nb	∞°	5	SSW	St		3°	SSW	St		1°	SSW	St		1°	SW	St		2	SW	St	
6	10°		St	∞°	10		St	∞°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
7	10		Nb	*°	10		Nb	*°	10		Nb	*°	9°		St	*°	10		Nb	*°	10		Nb	*°
8	3°	S	Ci-St		2°	S	Ci-St		9°	S	Ci-St		10	S	St-Cu		10°	S	St		1-2	S	St	
9	5°	S	St-Cu		5	S	Ci-St		4	S	St-Cu	∞°	6	S	Ci-St	∞°	7	S	Ci-St	∞°	10	S	Ci-St	*°
10	10	S	St	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
11	10		Nb	*°	10	SSW	St-Cu	*°	10		Nb	*°	10°	SSW	Ci-St		7°	SSW	Ci-St		8	SSW	Ci-St	
12	3°		Ci-St		3°		Ci-St		7		Ci-St		6°	W	Ci-St		10°		St		10°		St	
13	10^2	S	Nb	*°	10	S	St-Cu		10	S	St	*°	10	S	St	*°	10	S	St	*°	5	S	Ci-St	
14	9		St		10		St		10	W	St		10°	SW	St		6°	SW	Ci-St		10°	SW	St	
15	6°	SW	Ci-St		9°	SW	St		8°	SW	St		8°	SW	St		10	SW	St		10^2	S	Nb	*°
16	10	S	St		10		St		10		Nb	*°	10		Nb		10		Nb	*°	10		Nb	*°
17	6°	SW	Ci-St		7	SW	St-Cu		5°	SW	St		8	SW	St		3	SW	St		1°	SW	St	
18	8°	E	Ci-St		10°		Ci-St		10°		St		7°	W	Ci-St		6°		Ci-St		4°		Ci-St	
19	2°		St		1°		St		0·1°		St		2°	SW	Ci		1°	SW	Ci		1		Ci	
20	3°		Ci-St		2°		Ci-St		3°		St		7°		St		4°		St		3°		Ci-St	
21	0				1°	N	Ci		0				0				0				0			
22	0				0				0				0				0				0			
23	0				0				0				2	NE	Ci-St		2°	NE SE	Ci-St		2°	NE	Ci-St	
24	0				0				0				0				0				0			
25	0				0·1	E	Ci		7°	SE	Ci-St		5	S	St-Cu		4°	S	Ci-St		4	S	St-Cu	
26	0				0·1°	SE	Ci		3°	N SE	Ci-St		1°	N	Ci-St		0				1		Ci	
27	3°	E	Ci		6°	E	Ci-St		6°	E	Ci-St		7	E	Ci-St		6°	E	Ci-St		7	E	St-Cu	
28	8	SE	Cu		9		St-Cu		10		Nb		10		Nb	∞°	10		Nb	∞°	10		Nb	∞°
29	10^2	NNE	St-Cu	*°	10	NNE	St-Cu		10	NNE	St-Cu		9	NNE	St-Cu		7	NE	St-Cu		3	NE	St-Cu	
30	0				0				0				0				0				5		Ci-St	
Mean	5.0				5.0				5.6				5.6				5.3				4.9			

1899. May.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	4		Ci-St		5	E	Ci-St		8	E	St-Cu		2	NE	Cu		4	NE	Ci-St		3	NE	Ci-St	
2	10	N	St		10	N	St		10	N	St	$*^{\circ}$	10^{2}	N	Nb	$*^{\circ}$	10	N	St	$*^{\circ}$	6	NNE	St-Cu	
3	3	NNW	Ci-St		1		Ci		4		Ci-St		2°	N	Ci-St		0·1°		Ci-St		0			
4	2°		Ci-St		0				0				0				0				0			
5	0				0				1°		Ci		0				3°		Ci		0			
6	1				1		Ci-St		5°		Ci-St		5°		Ci-St		2°	E	Ci		1·2°	SE	Ci	
7	1·2		Ci-St		0				0				0·1°	N	Ci		4°		Ci-St		4°		Ci-St	
8	1		St		0				1		Ci		2°	E	St		2°	E	St		1°	E	St	
9	2	NE	Ci-St		3	NE	Ci-St		3	NE	Ci-St		1·2°	NE	Ci-St		1	N	Ci-St		0			
10	4	E	St		10	ENE	St-Cu		9	NE	St		9°	NE	St-Cu		8	E	St-Cu		7	E	St-Cu	
11	1°	NE	Ci-St		7	E	Ci-St		4	E	Ci		3°	E	Ci-St		5°	E	Ci-St		3°	E	Ci-St	
12	8	S	Ci-St		2	SSE	Ci-St		5	SSE	Ci-St		10^{2}	SSE	St-Cu	$*^{\circ}$	8^{2}	ESE	St-Cu		10^{2}	ESE	Nb	$*^{\circ}$
13	10		Nb	$*^{2}$	10		Nb	$*^{2}$	10		Nb	$*^{2}$	10		Nb	$*^{2}$	10		Nb	$*$	10		Nb	$*$
14	1	S	St		2	S	St		2	S	St		2	S	St		3	S	St		6	S	Cu	
15	2	SW	Ci-St		1°	SW	Ci		0·1°	SW	Ci		0·1°	SW	Ci		4°	SW	Ci-St		4°	SW	Ci-St	
16	10	SW	St		10	W	St		8	W	St-Cu		10	W	St-Cu		8	W	St-Cu		6	W	Cu	
17	4-5	W	Ci		5°	W	Ci-St		2°	W	Ci		1°	W	Ci		3°	W	Ci-St		7°	W	Ci-St	
18	10			≡	10			≡	10			≡	6	W	Ci-St		7°	W	Ci-St		6°	SW	Ci-St	
19	9	SW	St		9		St		8		St		10^{2}		St-Cu		10		St		10°		St-Cu	
20	10		Nb	$*$	10^{2}	S	St		7	S	St-Cu		6°	S	St-Cu		7	S	St-Cu		10^{2}	S	Nb	$*^{\circ}$
21	4		Ci		5		Ci		6		Ci-St		10		St	∞	8		St		7		St	
22	4	NE	Ci-St		2	NE	St		3	NE	Ci		0·1	NE	Ci		1	NE	Ci-St		1		Ci-St	
23	9°	N	Ci-St		3°	N	Ci		1°	E	Ci		3°	E	Ci		8°	E	Ci		5°	E	Ci	
24	1°	N	Ci		1°	NE	Ci		0				2°	E	Ci		1°	E	Ci		1°	E	Ci	
25	10	NE	Ci-St		10	NE	Ci-St		9	NE	St-Cu		8	NE	St-Cu		8	NE	St		10		St	
26	1°	N	Ci		0				0				0				0				0			
27	0				0				0				1°	S	Ci		9°	S	Ci-St		10°		St	
28	7		Ci-St		10			≡	10			≡	10		Nb	≡	10			≡	10			≡
29	0				0				0				0				0				0			
30	0				0				0				0				0				0			
31	0				0				0				0				0				0·1°		Ci	
Mean	4·2				4·1				4·1				4·1				4·7				4·5			

1899. May.

Rice Strait. $\varphi = 78^\circ 46' N.$ $\lambda = 74^\circ 57' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	3	NE	Ci-St		3	NE	Ci-St		2	NE	Ci-St		4	NE	Ci-St		10		Nb	*°	10		St	
2	4°	NNE	Ci-St		5°	NNE	Ci-St		3°	NNE	Ci-St		2°	NNE	Ci-St		7	NNE	St-Cu	*°	2		Ci-St	
3	0				0				0				0				0				0			
4	0				0				0				0				0				0			
5	0				0				0				0				0				0			
6	1°	SW	Ci		3°	SW	Ci		3°	SW	Ci		3°	WSW	Ci		4°	WSW	Ci-St		0-1	NW	Ci-St	
7	2		St		2		St		0				1°	N	St		1	N	St		3	N	St	
8	1	NE	St		0				1	E	St		0-1	E	St		2	E	St		0-1	NE	Ci-St	
9	0				1	E	St-Cu		3	E	Ci-St		3°	E	Ci-St		8°	NNE	St		3	NNE	Ci-St	
10	8	NE	St-Cu		7	NE	St-Cu		6	NE	St		4	NE	St		1°	NE	St		3	NE	St-Cu	
11	1		Ci-St		0-1°		Ci-St		1°	S	Ci-St		3°	S	St-Cu		9	S	St-Cu		9°	S	Ci-St	
12	10²	SE	Nb	*°	10	SE	Nb	*	10		Nb	*	10		Nb	*	10		Nb	*²	10		Nb	*²
13	10		Nb	*	10		Nb	*	10		Nb	*	10	S	St-Cu		5	S	St		3	S	Nb	
14	4	SW	St		2°	SW	St		2°	W/SW	Ci-St		3°	SW	Ci-St		2°	SW	St-Cu		2	SW	Ci-St	
15	5°	SW	Ci-St		2°	SW	Ci-St		2°	SW	Ci-St		8°	SW	Ci-St		9°	SW	Ci-St		6	W/SW	Ci-St	
16	3/4	W/SW	Ci/St		2	S	St		2°	W	Ci		2°	W	Ci		1°	W	Ci		4	W	Ci	
17	5°	W	Ci-St		6°	W	Ci-St		10			≡°	10			≡²	10			≡²	10			≡
18	5°	SW	Ci-St		7°	SW	Ci		5°	SW	St-Cu		4	SW	St-Cu		6°	SW	St-Cu		5°	SW	St-Cu	
19	7°		St-Cu		10		St		10	S	St	*°	10	SW	St-Cu	*°	10°		St	*	10		Nb	*
20	9	S	St		7	N	St-Cu		10	N	St		10	N	St		6°	N	St		7	SE	St	
21	3		St-Cu		5		Ci-St		3	NE	St		7	NE	St-Cu		8	NE	St		9	NE	St	
22	2		Ci		0				0				0				0				8°	NW	Ci	
23	2°		Ci		3°		Ci		3°	E	Ci-St		1°	N	Ci		1°	E	Ci-St		4°	NE	Ci-St	
24	1	N	Ci		3°	N	St		2°	N	St		5	N	Ci-St		8	NE	St-Cu		6	NE	Ci-St	
25	7		St		7	NE	St-Cu		2°	NE	St-Cu		2°	NE	Ci-St		2°	NE	Ci-St		1°		Ci-St	
26	0-1	E	Ci		0-1	E	Ci		0				0				0				0			
27	10		St		6	NE	Ci-St		5°	N	Ci-St		4°	N	Ci-St		0-1°		Ci-St	≡°	4		St	≡
28	10			≡	10		St	≡°	10		St	≡°	10			≡	10			≡	0			
29	0				0				1°		Ci-St		0				0				0			
30	0				0				0				0				0				0			
31	4°		Ci		0				0				0				0				0			
Mean	3.8				3.6				3.4				3.8				4.2				3.9			

1899. June.

Rice Strait. $\varphi = 78^{\circ} 46' $ N. $\lambda = 74^{\circ} 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				0				0				0			
2	0				0				3		Ci-St		1°		Ci-St		0				0			
3	0				0				0				0				0				0			
4	0				0				0				0				0				0			
5	4	N	Ci-Cu		6	N	Cu		10	N	St-Cu		3	N	Ci		5	N	Ci		1	N	Ci	
6	3	NE	Ci		3		Ci-St		4		St		8	E	St		8		Ci-St		7		Ci-St	
7	0				1	N	Ci		0				0				0				1	N	Ci	
8	0				0				0				0				0				0			
9	0				0				4		Ci		3		Ci		2	NE	Ci		9	NE	St	
10	3	S	St		5		St		7		Ci-St		4	SW	Ci		7	W	Ci		7		Ci	
11	8	S	St-Cu		10°	S	Ci-St		10°	S	Ci-St		10	SW	St-Cu		10°	SW	St-Cu		8	SW	St-Cu	
12	7		Ci		5	SW	Ci		10	SW	Ci		10°	SW	Ci-St		8°	W	Ci-St		3°	W	Ci	
13	1		Ci		1		Ci		0				0.5		Ci-St		0.5	N	Ci		0-1	N	Ci	
14	0				0				0				0				0				0			
15	0				0				0				0				0				0			
16	0				6		Ci		5		Ci		3	E	Ci-Cu		7°	E	Ci-Cu		5	NE	Ci	
17	2	N	St		1	N	St		3°	N	Ci		7°	N	St		4°	N	Ci-St		1°	N	Ci-St	
18	8	S	Ci		8	S	Ci		9	S	St		10	S	St		10	S	St		10	S	St	
19	10		Nb		10		Nb		10	S	Nb		10	S	St		9	S	St		10°		St	
20	6	S	Ci-St		9	S	St-Cu		10	S	St	✱	10^{2}		Nb	✱	10^{2}		Nb	✱	10^{2}		Nb	✱
21	10		St		10	S	St		9	S	St		9		St		8	S	Nb		10°	S	Nb	
22	10	S	Nb	✱°	10	S	Nb	✱°	10^{2}		Nb	✱	10		Nb		10°		St-Cu		9	S	St-Cu	
23	10			✱²	10			✱²	10		Nb		10^{2}		Nb	✱°	10		Nb		10		Nb	✱°
24	9	SW	St		6	SW	St		2	SW	St		1		St		0				0			
25	0				0				0								0				0			
26	10	NW	St-Cu		10	NW	St-Cu	△	10		St		10		Nb		10°		St-Cu		7°		St-Cu	
27	10	NW	St-Cu		8	NW	Ci		7	NW	Ci		7°	NW	Ci-Cu		9°	NW	Ci-Cu		9°	NW	St-Cu	
28	10		St		10^{2}		Nb	◍°	10°		Nb	◍°	10		Nb	◍°	10		Nb	◍	10		Nb	◍°
29	2°		Ci-St		0				0				0				0				0			
30	0				0				0				0				0				0			
Mean	4.1				4.3				4.8				4.2				4.6				4.3			

1899. June.

Rice Strait. $\varphi = 78° 46'$ N. $\lambda = 74° 57'$ W.

Day	2h Cloud Am.	2h Cloud Dir.	2h Cloud Fm.	2h Pr.	4h Cloud Am.	4h Cloud Dir.	4h Cloud Fm.	4h Pr.	6h Cloud Am.	6h Cloud Dir.	6h Cloud Fm.	6h Pr.
1	0				0				0			
2	0				0				0			
3	0				0				0			
4	0				0				0			
5	2	N	St-Cu		0				0			
6	7	N	Ci		9	N	St-Cu		10		St-Cu	
7	0				0				0			
8	0.5		St		0.5		St		1		Ci	
9	10°	E	St-Cu		10°	ESE	St		9°		Ci	
10	5	SW	Ci		9	SW	St		9	SW	St	
11	7	SW	St-Cu		5	SW	Ci	≡°	10			≡
12	0.5		Ci		0.5	W	Ci		1	N	St-Cu	
13	0				0				0			
14	0				0				0			
15	0				0				0			
16	3	N	Ci		9	N	St		6	N	Ci	
17	3°		Ci-St		2°		Ci-St		4°	W	Ci-St	
18	10	S	St		10	S	St		10	S	St	
19	8°		St		10		St		10°		St	
20	10		Nb	✱°	10²		Nb	✱	10²		Nb	✱
21	10°	S	Nb	✱°	10°	S	Nb	✱°	10	S	Nb	✱°
22	10		Nb	✱	10		Nb	✱	10		Nb	✱
23	10		Nb	✱°	10		Nb		10²		Nb	✱°
24	3°	S	Ci-St		6°	S	Ci-St		2°	S	Ci-St	
25	2°		Ci-St		2°		Ci		3°	WNW	Ci	
26	4°	NNW WSW	CI-ST ST-CU		8°	NNW	Ci-St		7°	NNW	Ci-St	
27	10	NW	St-Cu		9	NW	St-Cu		10		St	
28	10		Nb	◍°	10		Nb	◍°	10		St-Cu	
29	0				0				0			
30	0				2°		Ci-St		2°		Ci-St	
Mean	4.2				4.7				4.8			

Day	8h Cloud Am.	8h Cloud Dir.	8h Cloud Fm.	8h Pr.	10h Cloud Am.	10h Cloud Dir.	10h Cloud Fm.	10h Pr.	Midt. Cloud Am.	Midt. Cloud Dir.	Midt. Cloud Fm.	Midt. Pr.
1	0				0				2°		Ci-St	
2	1		Ci-St		1		Ci-St		1		Ci	
3	0				0				0			
4	0				0				1	E	Ci	
5	0				1	NW	Cl		4		Ci	
6	5	N	Ci		3	N	Ci		0			
7	0				0				0			
8	3		Ci		0				0			
9	9°		Ci		6°		Ci		1		Ci	
10	10	SW	St		10°	SW	St-Cu		9	S	St-Cu	
11	10			≡	10°	SW	Ci-St	≡°	10		Ci-St	
12	0.5	N	St		0.5	N	St-Cu		0.5		St-Cu	
13	0				0				0			
14	0				0				0			
15	0				1	NE	Ci		0			
16	9	N	St		7	N	St-Cu		1		Ci	
17	2°	W	Ci-St		3	SW	Ci-St		5	SW	Ci-St	
18	10	S	St		10	S	St		10	S	St	
19	10		St		10		St-Cu		10		St-Cu	
20	10		Nb	✱°	10	S	Nb		8	S	St	
21	10	S	Nb	✱°	10	S	Nb	✱°	10	S	St	✱°
22	10		Nb	✱	10		Nb	✱	10		Nb	✱²
23	10²		Nb	✱°	10²		Nb	✱°	10		Nb	
24	0				0			≡°	0			≡°
25	7	W	St-Cu		5	W	St-Cu		10°	NW	St-Cu	
26	9	W	St-Cu		10°	W	St-Cu		10°	W	St-Cu	
27	10		St		10		St		10		St	
28	10°		St-Cu		10°	SE	St-Cu		8		St-Cu	
29	0				0				0			
30	7°		Ci-St		10°	W	Ci-St		10°	W	Ci-St	
Mean	5.1				4.9				4.7			

1899. July.

Rice-Strait. $\varphi = 78^\circ 46'$ N. $\lambda = 74^\circ 57'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		Ci-St		9		St		8		St		3°		Ci		1		Ci		7°		Ci-St	
2	9°	W	St-Cu		6	W	Cu		8	W	Ci-St St-Cu		4		Ci-St		4°	N	Ci-St		2	N	Ci	
3	0				0				0				1°		Ci-St		0-1°		Ci-St		0			
4	9		St-Cu		8		St-Cu		10		Ci-St		10		St-Cu		9		St-Cu		8		St-Cu	*
5	3	S	Ci-St		8		Ci		4°		Ci		0-1°		Ci		0-1		Ci-St		0-1		Ci	
6	2	S	Ci		5	S	Ci-Cu		3	S	Ci-Cu		4	S	Ci-St		6	S	Ci-St		10°	S	St-Cu	
7	2°	S	St-Cu		1	S	St-Cu		4	S	St-Cu		4	S	Ci-St		4	S	Ci-St		8	S	St-Cu	
8	2	SW	Ci		1		Ci		2	S	Ci		2°	S	Ci-St		2				3	S	Ci	
9	2			≡	2			≡	2°		Ci		2°		Ci		5		Ci-Cu		2°		Ci	
10	8	S	St-Cu		10	S	St-Cu		10°		St-Cu		10°		St		9		Nb	●°	10		St	
11	10		Nb		10		St	●	10		St	●	10		St		10°		St		9		St-Cu	
12	2°		St		2°		St		2-3°		St		2°	S	Ci-St		6°	S	St-Cu		3°	S	Ci-St	
13	4°	S	Ci		3				3	S	Ci		7		St		10°		St		10°		St	
14	10		St	●	10		St	●	10		St	●	10	S	Nb	●°	10	S	Nb	●°	10	S	Nb	●°
15	1°		Ci		2°	NW	Ci-St		9		St		10		St		10		Nb	●	10		Nb	●
16	7	N	St		5	W	Ci-St		5	N	Cu		5	N	Cu		8	N	St-Cu		7	N	Cu	
17	8	NE	Cu		10°		Ci-Cu		10°		Cu		10		St		10	S	St-Cu		10	S	St-Cu	
18	10	S	St-Cu		10	S	St		5		Ci-St		7		Ci-St		8		Ci-St		3		Ci-St	
19	9	NW	Ci-St		10		St-Cu		9		St-Cu		10		St-Cu		7	S	St-Cu		8	S	St-Cu	
20	10		St-Cu		10		St-Cu		10	N	St-Cu		10	N	St-Cu		10°	N	St Cu		10°	W	St-Cu	
21	7°	SW	Ci-St		10	SW	St		10	SW			10²		Nb	≡	10		Nb	≡	10		Nb	≡
22	10	S	Nb		10	S	Nb		10	S	Nb		10²		Nb		10		St-Cu		10		St-Cu	
23	10²		Nb	●*°	10		Nb	●*°	10		Nb	●*°	10				10		Nb	●*°	10		Nb	●
Mean	6.3				6.7				6.5				6.6				7.0				7.0			

1899. July.

Rice Strait. $\varphi = 78° 46' N.$ $\lambda = 74° 57' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	6°		Ci-St		5°	NW	Ci-St		6				7	N	Ci-St		7	N SW	CI-ST ST-CU		9 5	W	CI NB	
2	1		Ci		0-1		Ci		0				0				0				0			
3	0				0				7	SW	Ci-St		7	SW	St		6	SW	Ci-St		6		St-Cu	
4	7	S	Ci-St		8	S	Ci-St		10°	S	St-Cu		10°	S	St-Cu		8	S	Ci-St		2°	S	Ci-St	
5	0				0				0				0				1-2	SW	Ci		3		Ci-St	
6	10°	S	St-Cu		10°	S	St-Cu		10°	S	St-Cu		10°	S	St-Cu		10°	S	St-Cu		7°	S	Cu	
7	7°	S	Ci-St		7	S	Ci-Cu		8	S	Ci-St		5°	SW	Ci-St		4	SW	Ci-St	≡	2	SW	Ci-St	≡
8	2	S	Ci		3	W	Ci		4	W	Ci		3°		Ci		2°		Ci-St		2°		Ci-St	
9	1°	S	Ci		1°	S	Ci		3				5	S	Ci-St		5	S	Ci-St		6	S	Ci-St	
10	10				10	S	Nb	●°	10	S	Nb	●°	10	S	Nb	●	10	S	Nb	●°	10		Nb	
11	8°		St		7°		Ci-St		8°	S	St		7°	S	Ci-St		5°	S	Ci-St		3°		St	
12	1°	S	Ci-St		2°	S	Ci-St		3°	S	Ci-St		2°	S	Ci-St		2°	S	Ci-St		2°	S	Ci-St	
13	10°		St		8°		Ci-St		10		St		10		St		10		St		10		St	
14	10	S	Nb		10°	S	Ci-St		8	S	St-Cu		4°	N	Ci-St		1°	N	Ci-St		1°	N	Ci-St	
15	10		Nb	*	10		Nb	*°	10		St		10	N	St-Cu		5°	N	Ci-St		3	N	Ci-St	
16	4°	N	Ci-St		2	N	Ci-St		2	NE	St		6°	E N	CI CU		5°	E N	CI CU		7	N	Cu	
17	10	S	St-Cu		10	S	St-Cu		10	S	St-Cu		10	S	Nb	●°	10	S	St-Cu		8	S	Ci-St	
18	0				1°		Ci-St		4°	N	Ci-St		10°	N	Ci-St		8°	N	Ci-St		10	N	CU ST	
19	4°		Ci		10°		Ci		10		St-Cu		10		St-Cu		10		St-Cu		10		St-Cu	
20	8	W	Ci-St		6	W	Ci-St		0				I		Ci		10	SSW	St-Cu		10°		St	
21	9		St-Cu		10		St-Cu		10^{2}		Nb	● *°	10^{2}		Nb	● *	10^{2}		Nb	●°	10		Nb	●°
22	10		St-Cu		10		St-Cu		10		St-Cu		10°		St-Cu		10°		St-Cu		10^{2}		St-Cu	*
23	10		Nb		10		Nb	●	10		Nb	●	10		Nb	●	10		Nb	●	10		Nb	●
Mean	6.0				6.1				6.6				6.8				6.5				6.0			

1899. October.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
23	10				10				10				10				10				10			
24	10		Nb	*°	10		Nb	*°	10				10		Nb	*°	10		Nb		10°		St	
25	10		Nb	*°	4'		Nb		10		St	*°	10		Nb		10		Nb	*°	10		Nb	*
26	0				3°		Ci-St		2		Ci-St		1		St		1		St		0			
27	10°	SE	Ci-Cu		8°		Ci-St		0				0				2°		St		4°		Ci-St	
28	0				0				0				0				0				0			
29	0				0				0				1°		St		1		St		3		Ci-St	
30	0				0				0				0				1°		St		4°		Ci-St	
31	0				0				0				0				2°		St		3		St	
Mean	4.4				3.9				3.6				3.6				4.1				4.9			

1899. October.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h				4h				6h				8h				10h				Midt.			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
23	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	*
24	10°		St		10°	N	Ci		3		St		3		St		10		St		10		St	*
25	10		Nb	*	10	E	St-Cu		3		St		0				0				0			
26	5°		Ci-St		5°		St		4		St		0				0				0			
27	3°		Ci-St		3°		Ci-St		1		St		0				0				0			
28	0				0		St		1		St		0				0				0			
29	4°		Ci-St		2		St		1		St		1		St		0				0			
30	2°		Ci St		0				0				0				0				0			
31	4		St		5		St		10		St		10		St		10		St		10		St	
Mean	5.3				5.0				3.7				2.7				3.3				3.3			

1899. November.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	10		St		10		Nb	$\ast^\circ$	10		St		10				10		Nb	$\ast^\circ$	10		Nb	$\ast^\circ$
2	0				10		Nb	$\ast$	10			$\ast^\circ$	10		Nb	$\ast^\circ$	10		Nb		10		St	
3	0				5				10^2		Nb		10		Nb	$\ast^\circ$	10°		St		0-1		St	
4	0				0				0				0				0				0			
5	10				10		St		0				10		St		10		St		10°	W	CI-ST ST	
6	0				0				1		St		0				0				0			
7	10		St		10		St		10		St		10		St		10		St		10		St	
8	0				0				0				7°		Ci-St		9°		St		10°		St	
9	0				0				0				2°		St		1°		St		0			
10	0				0				0				0				1°		St		0			
11	0				0				0				0				0				3°		St	
12	4		St		2		St		10		St	$\ast^\circ$	10		St		10		St	$\equiv^\circ$	10		St	$\equiv^\circ$
13	10			∞°	10^2		Nb		10^2		Nb		10^2		Nb		10		St		10		St	
14	5		St		0				0				0				0				0			
15	9			∞°	10		Nb		10		St	$\ast^\circ$	10^2		Nb	$\ast^\circ$	10^2		Nb	$\ast^\circ$	10^2		Nb	
16	1°		St		7		St		3		St		2		St		0				0			
17	0				0				0				0				0				0			
18	0				0				0				1°		St		2		St		0			
19	0				0				0				0				0				0			
20	0				0				0				0				0				0			
21	3		Ci-St		6°		Ci-St		0				0				0				0			
22	4		St		10°		St		10°		St		10°		St		10°		St		10°		St	
23	0				0				0				0				0				0			
24	2		Ci-St		10°		St		0				0				0				0			
25	0				0				0				0				0				0			
26	0				0				0				0				3°		St		8°		St	
27	0				0				0				0				0				0			
28	0				0				0				1		St		0				5°		St	
29	0				0				0				0				0				0			
30	0				0				0				0				0				0			
Mean	2.3				3.3				2.8				3.4				3.5				3.6			

1899. November.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud Am.	2h Cloud Dir.	2h Cloud Fm.	2h Pr.	4h Cloud Am.	4h Cloud Dir.	4h Cloud Fm.	4h Pr.	6h Cloud Am.	6h Cloud Dir.	6h Cloud Fm.	6h Pr.	8h Cloud Am.	8h Cloud Dir.	8h Cloud Fm.	8h Pr.	10h Cloud Am.	10h Cloud Dir.	10h Cloud Fm.	10h Pr.	Midt. Cloud Am.	Midt. Cloud Dir.	Midt. Cloud Fm.	Midt. Pr.
1	10		Nb	✱°	10		Nb		10		Nb	✱°	10		Nb	✱°	10		Nb	✱°	0			
2	10		St		10		St		10		St		10		Nb	✱	10		Nb	✱°	10		Nb	✱°
3	0				0				0				0				0				0			
4	6°		Ci-St		10		St		3		St		10		St		10		St		10		St	
5	10				10		St		10		St		10		St		0				0			
6	0				3°		St		0				0				10		St		10			
7	10°		St		10°		St		0·1		St		0				0				0			
8	10		St		5°		St		10		St		10		St		10		St		10		St	
9	0				0				0				0				0				0			
10	0				0				0				0				0				0			
11	2		St		1		St		0				3°		St		2°		St		3			
12	10			≡°	10			✱°	10			≡°	10			≡°	10			∞°	10			∞°
13	10		St		2		St		3°		St		2°		St		2°		St		2°		St	
14	0				4°		St		5			∞°	6			∞°	7			∞°	8			∞°
15	5		St		10²		Nb	✱°	7°		St		10°		St	✱	4°		St		0			
16	1°		St		0				0				0				0				0			
17	0				1		Ci-St		1°		Ci-St		0				1		Ci-St		0			
18	0				0				0				0				0				0			
19	0				0				0				0				0				0			
20	0				0				0				0				0				0			
21	0				0				0				4°		Ci-St		6°		Ci-St		0·1°		Ci-St	
22	10		St		5		St		1°		St		1°		St		1°		St		0			
23	0				0				0				0				0				0			
24	0				0				0				0				0				0			
25	0				0				0				0				0				0			
26	4°		St		2°		St		0				0				0				0			
27	0				0				0				0				5°		Nb	✱°	0			✱°
28	3°		St		1		St		0				0				0				0			
29	0				0				0				0				0				0			
30	0				0				0				0				0				0			
Mean	3·4				3·1				2·4				2·9				2·9				2·1			

1899. December.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0				0				0				0				0				10°		Ci-St	
2	0				0				0				0				0				0			
3	0				0				0				0				0				0			
4	0				0				0				0				0				0			
5	0				0				0				3		St		9		St		10°		Ci-St	
6	0				3		St		4		St		6		St		6		St		1		St	
7	10		St	*°	10				10			*	0			∞°	2			*	5			*
8	0				0				0				0				0				10		St	
9	10				10				10				6				2°		St		0			
10	0			∞	0				0				0				5		St		10		Nb	
11	0				0				0				0				0				2°		Ci-St	
12	0				1		St		3		St		0				2°		St		10		St	
13	10		St		7°		St		10°		St		3°		St		0				3°		St	
14	2°		St		7°		St		9°		St		7		St		7°		St		7°		St	
15	0				0				0				3			∞°	6			∞°	10°		St	
16	10			∞°	10			*°	10			*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	
17	10				10				10				10			∞°	10			∞°	10			∞°
18	0				0				0				0				0				0			
19	0				1		St		1		St		1°		St		1°		St		0			
20	0				0				0				0				1		St	∞°	2		St	∞°
21	0				0				0				0				0				0			
22	0				0				0				0				0				0			
23	0				0				0				3			$*^2$	6			∞°	10		St	
24	10		St	*°	10		St	*	10		St	*°	10		St		10		St		10^2		Nb	*°
25	10			*°	10			*	10			*	10^2		Nb	*°	10^2		Nb		0			
26	0				0				0				0				0				0			
27	10			*°	0				0				7°		St		1°		St		3°		St	
28	10		St		3		St		10		St		10		St		10		Nb		9		St	
29	0				0				0				0				4°		St		8°		St	
30	0				0				0				0				0				0			
31	0				0				0				0				0				0-1		St	
Mean	3.0				2.6				3.1				2.9				3.3				4.6			

1899. December.

Havnefjord. $\varphi = 76^{\circ}\,29'$ N. $\lambda = 84^{\circ}\,4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10°		Ci-St		4°		Ci-St		0				0				0				0			
2	0				0				0				0				0				0			
3	0				0				0				0				0				0			
4	1°		St		0				0				0				0				0			
5	10°		Ci-St		4		St		4		St		3		St		0				0			
6	0				0				0				10		Nb	*°	10°		St		10°		St	∞°
7	8			∞°	10°			*	0				0				10°		St	*°	0			
8	10°		St	*°	2°		St		10°		St	*°	10°		St	*°	10		St		10		St	
9	0				4°		St		3°		St		10			∞°	0			∞°	0			∞°
10	10		St		10°		St		10°		St		2		St		1		St		0			
11	2-3°		Ci-St		3°		Ci-St		3°		Ci-St		3°		Ci-St		2°		St		0			
12	9°		St		2°		St		1°		St		5°		St		10°		St		10°		St	
13	0				5°		St		6°		Ci-St		8°		Ci-St		10°		St		10°		St	*°
14	0				0				0				10°		St		10°		St		0			
15	10			∞°	10			∞°	10			∞°	10			∞°	10			∞°	10			∞°
16	10^2		Nb		8°		St		10°		St		4°		St		7			≡*°	10			
17	4°		St	∞°	0				0				0				0				0			
18	0				0				0				0				0				0			
19	0				0				0				0				0				0			
20	0				0				0			∞°	0				0				0			
21	0				0				0				0				0				0			
22	0				0				0				0				0				0			
23	10		St		0				0				10		St		10		St		10		St	*°
24	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb		10^2		Nb	*°	10^2		Nb	*°
25	2		St		0				3		St		0				4		St		0			
26	0				0				0				10				10				10			*°
27	3		St		10°		St		10		St		10		St		10		St		10		St	
28	10	SE	St		10		St		0				0				0				0			
29	2°		St		1°		St		1°		St		0				0				0			
30	0				0				0				0				0				0			
31	0-1		St		1		St		1		St		0				2	NW	St		0			
Mean	4.0				3.0				2.6				3.7				4.1				3.2			

1900. January.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				0				0				0			
2	0				4°		St		10°		St		10°		St		10²		Nb	∗°	10²		Nb	∗
3	10			∗°	10			∗°	10			∗°	10				10		Nb		10		Nb	
4	10		Nb	∗°	10		Nb	∗°	10		Nb		10				10				10			
5	0				0				0				0				0				0			
6	10			∞°∗°	10			∞°∗°	10			∞°∗°	10			∞°	10		Nb	∗°	10		Nb	
7	0				0				0				0				0				0			
8	0				0				0				0				4°		St		9°		St	
9	6		St		10				10				0				10		St		10		St	
10	3		St-Cu		5		St-Cu		10				0-1		Ci-St		2		St		1		St	
11	3°		St		10			∞°	10			∞°	10		St		10²		St	∗°	10°		St	∞°
12	0				0				0				0				0				0			
13	0			∞°∗°	0			∞°	0			∞°	3			∞°	7				0			
14	4			∞°	5			∞°	6			∞	7			∞	8			∞	10		St	
15	0				0				0			∞°	0			∞°	0			∞°	0			∞°
16	0				0				0				0			∞°	0			∞°	0			∞°
17	0				0			∞°	0			∞°	0			∞°	0			∞°	0			∞°
18	0				3		Ci		5		Ci		3		St		9		St		4°		St	
19	0				0				0				0				0				0			
20	0				0				1		St		10		St		8°		St		10°		St	
21	1		St		0				1		St		0				0-1°		St		0			
22	0				0				0				0				0				0			
23	0				0				0				0				0				0			
24	0				0				0				0				0				0			
25	0				0				0				0				0			∞°	0			
26	0				0				0				0				0				0			
27	0			∞°	0			∞°	0				4°		St		9°		St		10°		St	
28	8			∗°	7			∗°	6				5			∞°	4			∞°	3°		St	
29	10		Nb	∗°	10°		Nb	∗°	10°		Nb	∗°	10		Nb		10		Nb		10		Nb	
30	10		Nb		0			∞°	0			∞°	0			∞°	0			∞	0			∞°
31	0				0				0				0				0				0			
Mean	2.4				2.7				3.2				3.0				3.9				3.8			

1900. January.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				8°		St		2		St		0				0			
2	10^2		Nb	*	10^2		Nb	*	10^2		Nb	*	0			⊹	0			⊹	10			
3	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	7		Nb	*°
4	10°				6				0				0				0				0			
5	1		St		0				2°		St		2		St		0				10			∞°
6	10		St	∞°	10		St		2		St		2		St		1		St		0			
7	0				0				0				0				0				0			
8	10°		St		7°		St		10		St	∞°	10		St		10		St		7			
9	10		St		10		St		10		St		10		St		9		St-Cu		5		St-Cu	
10	3		St		3°	NNE	St		0				0				3°		St		7°		St	
11	10		St	*	5°		St		4			∞°*°	3°		St	∞°*°	2°		St		0			
12	1		St		1		St		2		St		2°		St		10°		St		1°		St	
13	4°		St		0-1°		St		0				0				0				2		St	
14	10^2		St		0			∞°	0			∞°	0				0				0			
15	0			∞	0			∞°	0				0				0				0			
16	0				0				0			∽°	0			∞°	0			∽°	0			
17	0				0				0				0				0				0			
18	3°		St		2		St		0			∞°	0				0				0			
19	0				0				0				0				0				0			
20	5		St		1		St		0				0				0				0			
21	1		St		2		St		1		St		2		St		1		St		0			
22	0				0				0				0				0				0			
23	0				0				0				0				0				0			
24	0				0				0				0				0				0			
25	0				0				0				0				0				0			
26	0				0			∞°	0			∞°	0			∞°	0			∞°	0			∞°
27	10		St		10		Nb		10		Nb	*°	10		Nb	*°	10			*°	9			∞°
28	3				2				1				0				0				10		St	
29	10^2		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10				10				10			
30	0			∞°	0			∞°	0			∞°	0			∞°	0				0			
31	0				0				0				0				0				0			
Mean	3.9				2.9				2.6				2.0				2.1				2.5			

1900. February.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				7°		St		10°		St		10		St	
2	10			∗°	10²			∗°	10				10		St		8°		St		10°	N	St	
3	10				10				10				10				10		St		10		Nb	
4	10			∗	10			∗	5				10		Nb		10²		Nb		10	SE	St	
5	10		St		6		St		7		St		0-1		St		10	SE	St		6	SE	St	
6	5		St		3		St		10		St	∗°	10²		Nb	∗²	8		St	∞°	1°		St	
7	10°		St		5°		St		6°		St		9		St		9		St		10°		St	
8	10		St		10°		St		10°		St		10		St		10		St		10		Nb	
9	10		St	∗°	10		St		10		St		10²		St		10			∞°	10		St	
10	10		St	≡°	10		St		9		St		9°		St		10°	SSW	St		10	SSW	St	
11	10				10				10				8			≡	6			≡	4			∗°≡
12	10				9			∞	9			∞	8		St		6		Ci-St		7°		St	
13	0				0				1		St		6°		St		7°	SSW	Ci-St		3°	SSW	Ci-St	
14	10		Nb		10		Nb		9			≡	8			≡	7			≡	6			≡
15	0				0				0				0				0				0			
16	1				0				0				0				0				1		St	
17	0				0				0				0				3°		St		6°		St	
18	0				0				0				0				6°		Ci-St		5°		Ci-St	
19	10			∗°	10			∗°	10				10			∞°	10				10			
20	10			∗°	10			∗°	10		Nb	∗°	10			∗°	9			∞°	9			∗°
21	0				0				10			∞	10²		St		10²		St		10		St	
22	10		Nb	∗°	10		Nb		10		Nb		10		Nb	∗°	8°		Ci-St		6°		Ci-St	
23	0			∗°	3			∗°	7			∞°	10°		St		4°		Ci-St		3°		Ci-St	
24	0				0				2		Ci		5°		St	∞°	6°		Ci-St	∞°	8°		Ci-St	∞°
25	0				0				0				0				0				0			
26	0				0				0				0				0				0			
27	0				0				0				10°		St		3		St		9		St	
28	5		St		5		St		10		St		10		Nb	∗°	10		Nb		10		Nb	∗°
Mean	5.4				5.0				5.9				6.8				6.8				6.6			

1900. February.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10		St		10°		St		10		St	∗°	10		St	∗°	10°		St		10			∞°
2	10°	N	St		10°		St		10		St	∞°	0			∞°	0			∞°	10			
3	9		St		9		St		10^2				10^2				10^2			∗	10			
4	8	SE	St		10		St		10		St		10		St		10		St		10		St	
5	10	SE	St		10^2		Nb	∗	10				10^2		Nb		10^2		Nb		9°			∗
6	0				1°		St		2		St		3°		St		4		St		2°		St	
7	10°		St		10		St		10		St		10		St		10		St		10		St	
8	10		St		10		St		10	SE	St		10	SE	St		10	SE	St		10		St	∗°
9	10		St		10		St		10		St		10		St		10		St		10		St	
10	10	SSW	St		10	SSW	St		7°	N	St		10°		St		10°		St		10			
11	2			≡	0			∞	0				1°		St		7°		St		5°		St	
12	7°		St		4°		St		4°		St		0				0				0			
13	0				0				0				3°		St		7			≡	10		Nb	
14	5			≡	4			≡	3		St		3°	S	St		0				0			
15	0				0				0				0				0				0			
16	0				0				0				0				0				0			
17	2°		St		0				1°		St		0				0				0			
18	8°		Ci-St		10°		St		10°		St		0				0				5			
19	10	E	Nb		10		Nb	∗°	10		Nb	∗°	10			≡∗°	10			∗	10			∗
20	8		St		8		St		6		St		4		St		2		St	∞°	0			
21	10^2		St	∗°	10		St		10		St		10^2		St		10°		St		10°		St	∗°
22	10		Nb	∗°	10		Nb	∗°	10		Nb		9°		Nb	∗°	0				0			
23	1°		Ci-St		2°		St		1°		St		0				0				0			
24	7°		Ci-St	∞°	10°		Ci-St	∞°	10°		Ci-St	∞°	0				0				0			
25	1°		St		0				0				0				0				0			
26	0				0				0				0				0				0			
27	10°		St		2		St		0-1		St		5		St		0				0			
28	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	5				6			∗°
Mean	6.4				6.1				5.9				4.9				4.5				4.9			

1900. March.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	7			∞°	8			*°	9			∞°	10		St	∞°	5		St	∞°	5		St	∞°
2	0				0				0				0				0				0			
3	0				0				0				0				0				0			
4	0			∞°	0			∞°	0			∞°	0				0				0			
5	0				0				0				1		Ci-St	∞°	1		St		2		Ci-St	
6	0				1		St	∞°	9°		St		8°		St		1·2		St		1		St	
7	4		St		5		St		10°		St		9°	SE	Ci-St		9°	SE	Ci-St		8°	SE	Ci-St	
8	3		St		10		St		10		St	*	10		Nb	*°	10°		St		10		Nb	*°
9	4°		St		10				0				10		St		10		St		10		St	
10	0				0				0				0				0				0			
11	0				0				0				0				0				0			
12	0				0				0				0				0				0			
13	0				0				0				2°		Ci-St		3°		Ci-St		5°		Ci-St	
14	0				0				0				0				0				0			
15	1°		St		3°		St		10°		St		7°		Ci-St		10°		St		10		St	∞°
16	10		St		10		St		10		St		10		St		9°		St		10		St	
17	10		St		10		St		10		St		10		St		10		Nb	*°	5°	NW	Ci-St	
18	0				0				0				0				0				0·1°		St	
19	5		St		7		St		7		St		10		St		10		St		10		St	
20	0				0				0				0				0				0			
21	0				0				0				0				0				0			
22	0				0				0				1		St		0				0			
23	0				0				0				0				0				0			
24	0				9		St		0		St		8		St		10		St	∞°	10		Nb	*°
25	10		St		10			∞°	6		St		8°		St-Cu		8°		Ci-St		10°		St	
26	10		Nb	*	10		Nb	*	10°		Nb		4°		St		3°		St		1°		St	
27	0				0				4°		St		8		St		8		St		8		St	
28	1°		St		1		St		4		St		0				0				0			
29	0				0				0				0				0				0			
30	0				1		St		1		St		1		St		1		St		1		St	
31	3		St-Cu		0				0				0				1°				0			
Mean	2.2				3.1				3.2				3.8				3.2				3.5			

1900. March.

Havnefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10		St	∞°	10			∞	10			∞	10		St		0				0			
2	0				0				0				0				0				0			
3	0				0			∞°	0			∞°	0			∞°	0				0			∞°
4	0				0				0				0			∞°	0				0			
5	7°		St		9		St		10°		St		10°		St		0				0			
6	10°		St		10^2		Nb	∗°	10		St		10			∗	8			∞°	7		St	
7	8°	SE	Ci-St		7°	SE	St		7°		St		5°		St		7°		St		5			
8	5°		St		4°		St		0				4		St		8°		St		3°		St	
9	9		St		9		St		3		St		1°		St		0-1°		St		0			
10	0				0				0				0				0				0			
11	0				0				0				0				0				0			
12	0				0				0				0				0				0			
13	3°		Ci-St		0				2°		Ci-St		0				0				0			
14	5°		St		3°		St	≡°	3		St	≡°	2		St	≡°	1		St	≡°	0			
15	10		St		10		St		10		St		10		St		10		St		9		St	
16	10		St		10		St		10		St		10		St		10		St		10		St	
17	4°	NW	Ci-St		2°		Ci-St		1°		Ci-St		0				0				0			
18	0				0				0				0				0				0-1		St	
19	10		St		10		St		10	N	St		1°		St		0				0			
20	0				0				0				0				0				0			
21	0				6°		St-Cu		3°		St-Cu		2		St		1		St		0			
22	0				2°		Ci-St		1		St		0				0				0			
23	1°		Ci-St		2		Ci-St		4		Ci-St		1		St		0				0			
24	10		Nb		2		Nb		1		St		4		St		10		St		10		St	
25	10		St		8°		St	∞°	8°		St	∞°	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°
26	0				0				0				0				0				0			
27	0				1°		St		3°		St		1		St		2		St		1		St	
28	0				0				0				0				0				0			
29	0				0				0				2				0				0			
30	0				1		St		1°		St		3		St		4		St		8		St	
31	0				0				0				0				0				0			
Mean	3.6				3.4				3.1				2.8				2.3				2.1			

1900. April.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				0				0				0			
2	0				2		St		1		St		1		St		0				0			
3	0				0				0				0				0				0			
4	0				0				0				4°		St		3°		Ci-St		3°		St	
5	1		St		5°		St		5°		St		0				1		St		10			∞°
6	0-1°		St		0-1°		St		0-2		St		0				0				0			
7	0				0				0				0				0				0			
8	10		Ci-St		10		St		10		St		10		St		0				0			
9	10		Nb	*°	10		Nb	*°	10		Nb	*	10		Nb	*	10		Nb	*	10		Nb	*
10	10		Nb		10		Nb	*°	10		Nb		10°		St		10°		St		2°		St	
11	2°		St		1°		St		3		St		0				0				8		Ci	
12	2		St	∞°	3		St	∞°	5		St		10°		St	∞°	10		St	∞°	10°		Ci-St	
13	3		St		4°		St-Cu		2°		St		0				0				0			
14	0				2°		St		3°		St		0				4		St		10		St	
15	10		St		10		St		10		St		10		Nb	*°	10		Nb	*°	10		Nb	*°
16	10		St		10		Ci-St		3		Ci		0				0				0			
17	0				0				0				0				8		Ci-St		10		St	∞°
18	9		St-Cu		8		St-Cu		7		St		10		St		10		St	∞°	10²		St	
19	9		St		10		Nb	∞°	10				10°		Nb	*°	10°		Nb	*°	10°		Nb	*°
20	10		Nb	*°	10			*°	10			*°	10		Nb	*°	5		St	∞°	5°		St	
21	10		St		10		St		10		St		10		St		10		St		3°		St	
22	1		St		2°		St		2°		St		2°		St		2°		St		2°		St	
23	1		St		1		St		1		St		4°		Ci-St		5°		Ci-St		6°		Ci-St	
24	10		Nb	*	10		Nb	*	10		Nb	*	10		Nb	*°	10°		Nb	*°	10°		Nb	
25	10		Nb	*°	10		Nb	*°	8		St	*°	10		Nb	*°	10°		Nb	*°	5		Nb	*°
26	8		Nb	*°	6		St		7		St	*°	5		Nb	*°	5		Nb	*°	5		St	
27	5°		Ci		3°		Ci-St		2°		Ci-St		0				0				1°		Ci-St	
28	0				0			∞°	0			∞°	0				0				0			
29	7		St		10		St		10		St		10°		St		10°		St		10°		St	
30	6°		St		9°		St		6°		St		7°		St		9		St		6°		St	
Mean	4.8				5.2				4.9				4.8				4.7				4.9			

1900. April.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				0				0				0				0			
2	0				0				0				0				0				0·1		St	
3	0				0				0				0				0				0			
4	1		St		1		St		8		St		10			∞°	2		St		3°		St	
5	10			∞°	5			∞°	0				0				0				0			
6	0				0				0				0				0				0			
7	0				0				0				8		St		5°		St		2		St	
8	0				3°		Ci		2°		Ci		10°	N	Ci-St		10°		St		10°		St	
9	10		Nb	*	10		Nb	*°	10		Nb	*	10		Nb	*	10		Nb	*	10		Nb	
10	3°		Ci-St		4°		St		5		St		3		St		2°		St		3°		St	
11	8		Ci		10		Ci-St		10			∞°	10		Nb	*°	9		St	∞°	4		St	∞°
12	10°		St		4		St		5		St		3°		St		4		St		2		St	
13	0				0				0				0				1°		St		0			
14	10		St		10		St		10		St		10°		St		3°		St		5°		St	
15	10		Nb	*°	0				0				0				1		St		2		St	
16	0				0				0				0				0				0			
17	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	∞°
18	10		St	∞°	6°		St		5°		St		7°		St		7		St		10			*°
19	10°		St	*°	6°		St-Cu	*°	10°		Nb	*°	10°		St	∞°	10°		St	∞°	10°		St	∞°
20	6°		St		10°		Nb		10		St		10		St		10		St		10		St	
21	0				5		Ci-St		2°		St		1°		St		0				0			
22	1°		St		1°		St		0·1°		St		1		St		1		St		2		St	
23	7°		Ci-St		10		St		10		Nb	*°	10		Nb	*	10		Nb	*	10		Nb	*
24	10°		Nb	*°	10°		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*
25	10°		Nb	*°	10°		Nb	*°	10°		Nb	*°	8		Nb	*°	10		Nb	*°	8		Nb	
26	5°		Ci-St		6°		Ci-St		5		Ci-St		5°		Ci-St		8°		Ci-St		2°		Ci	
27	0				0				0				0				0				0			
28	0				0				3°		St		2°		St		4		St		4		St	
29	3°		St		9		St-Cu		9		St-Cu		8		St-Cu		9		St-Cu		7		Ci-St	
30	10°		Nb		10°		Nb	*°	6°		St		4°		St	∞°	0				0			
Mean	4·9				4·7				4·7				5·0				4·5				4·2			

1900. May.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	6			*°	8		St	*°	10		Nb	*°
2	10		Nb		10		St		10		St	
3	10		St		10		St		10		Nb	
4	10		Nb	*°	10		Nb		10		Nb	
5	10		Nb		10				9°		St	
6	2		Cu-Nb		0				0			
7	2		St		10		St-Cu		10		St	
8	10		Nb		10		Nb	*°	10		Nb	
9	10		Nb	*°	10				10			
10	5	SW	St-Cu		10°		Cu		10		Cu	
11	1		Ci		0				0			
12	0				0				0			
13	0				0				1		Ci	
14	10		St		10		St		10		Nb	*°
15	10		Nb		10		Nb		5		Cu	
16	10		Nb		10		Nb	*°	10		Nb	*°
17	10		Nb	*°	10		Nb	*°	19		Nb	*°
18	10°		St		10		St		10		St-Cu	
19	10		Nb	*	10		Nb	*	10		Nb	*°
20	10		Cu-Nb		4		Cu-Nb		5		Cu-Nb	
21	9		Ci-St		9		St-Cu		8		St-Cu	
22	4				4		Ci-St		8		Nb	
23	10		Nb	*°	10				10		Nb	*
24	10		Nb		10				10		St	
25	0				0				0			
26	1°		Ci-St		0				0			
27	0				0				0			
28	0				0				0			
29	9		St-Cu		9		St-Cu		0			
30	3		St-Cu		2				1			
31	10		Nb	*°	10				10		Nb	*°
Mean	6.5				6.6				6.4			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		St		10		Nb	*°	10		Nb	*°
2	8°		St		3°		St		2°		St	
3	10		St		10		St		6		St	
4	10		Nb	*°	10		Nb	*°	10°		St	
5	7		St		5		St		4		St-Cu	
6	0				1		Ci-St		4°		Ci	
7	6	E	Cu-Nb	*°	4	E	Cu-Nb		3	E	Cu-Nb	
8	8		St		6		St		4		St-Cu	
9	10		Nb	*°	10		Nb	*°	10		Nb	*°
10	7	s	Ci St		3		St-Cu		2°		St	
11	0				0				0			
12	0				0				0			
13	1				2°		St		3°		St	
14	10		Nb	*°	10		Nb		10		Nb	
15	10		Nb		10°		St		10		Cu-Nb	
16	10		Nb	*°	10		Nb	*°	10		Nb	*°
17	10		Nb	*°	10		Nb	*°	10		Nb	*°
18	10		Cu-Nb		10		St		10		St	
19	10		Nb	*°	10		Nb	*°	10		Nb	*°
20	4		Cu-Nb		3		Cu-Nb		5		St-Cu	
21	10		St-Cu		8		St-Cu		6		St-Cu	
22	10		Nb		10		Nb	*°	6		Cu-Nb	*°
23	10		Nb	*°	10		Nb	*°	10		Nb	*°
24	10		St		10		St		8		Cu-Nb	
25	0				0				0			
26	0				0				0			
27	0				0				0			
28	0				0				0			
29	6		Ci-Cu		8	SE	Cu-Nb		10°	SE	St-Cu	
30	0				1		Ci-St		4		Ci-Cu	
31	10°		Nb	*°	10		Nb	*°	10°		Nb	*°
Mean	6.5				6.1				5.7			

1900. May.

Havnefjord. $\varphi = 76^\circ 29' $ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10		Nb	*°	10		Nb		10		Nb	*°	10		Nb		10		Nb		10		Nb	
2	2°		St		9		St-Cu		10		St		10				10		St		10		St	
3	9		St		10		St	∞°	9		St-Cu		9		St-Cu		8		St-Cu		8		St-Cu	
4	9		St-Cu		8		St-Cu		7		St-Cu		10		Nb	*°	10		Nb		10		Nb	
5	6		St-Cu		10		St-Cu		10		St-Cu		10		St-Cu		8		St-Cu		3		St-Cu	
6	4		Ci		5		Ci-St		3		Ci-St		3	S	Ci		3	S	Ci		4		Ci	
7	7	E	Cu-Nb	*°	10		Cu-Nb	*°	10		Nb	*	9		Cu-Nb		10		Cu-Nb		10		Cu-Nb	
8	8		St		5		St-Cu	∞°	10		Nb	∞°	10		Nb	*°	9		Cu-Nb	*°	10		Nb	*°
9	10		Cu-Nb		5	S	Ci-Cu		3		St-Cu		2		St-Cu		8		St-Cu		1	S	St-Cu	
10	2°		St		1		St		0				0				1		Ci		1		Ci	
11	0				0				0				1		Ci		3°		St		0			
12	0				0				0				0				0				0			
13	2°		St		3		St		4		St		2		St		10		St-Cu		10		St	
14	10		Nb	*°	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	
15	10		Cu-Nb		10		Cu-Nb		10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*
16	10		Nb	*°	10		Nb	*	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
17	10		Nb	*°	10		Nb		10		Nb		10		Nb		10		St		10°		St-Cu	
18	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*
19	10		Nb	*°	10		Nb	*°	10		Nb	*°	9		Nb		9		Nb		10		Cu-Nb	
20	10		Nb		10		Nb		10		Cu-Nb		10		Cu-Nb		10		St		10		St	
21	5	S	St-Cu		4	S	St-Cu		5	SSW	Ci-Cu		6°		Ci-St		6	SW			5			
22	10°		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
23	10		Nb	*°	8		Cu-Nb		2		Cu-Nb		2°		Cu-Nb		4°		St		7°		St	
24	0		St-Cu		2		St		1		St		0				0				1		Ci	
25	0				0				0				0				0				0			
26	0				0				0				0				0				0			
27	0				0				0				0				0				0			
28	0				3		Ci-Cu		2		Ci-Cu		3°		Ci-Cu		3°		Ci-Cu		5°		St-Cu	
29	10°	SE	Cu-Nb	*°	10	SE	Nb	*°	10	SE	Nb	*°	10°	SE	Cu-Nb		9°	E	Cu-Nb		9°	E	Cu-Nb	
30	9°		Cu		6	E SE	Ci-Cu St		6	SE	Cu-Nb	*°	10°		Nb	*°	10		Nb	*°	10		Nb	*°
31	10		Nb		10°		Nb		9°		St-Cu		10		St-Cu		10		St-Cu		10		St-Cu	
Mean	6.2				6.4				6.2				6.3				6.8				6.6			

1900. June.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		St		10				9				10		Nb		10		Nb	∗°	10		Nb	∗°
2	10		Nb		10		Nb		10		Nb		6°		St	∗°	10°		Nb		10		Nb	
3	10		Nb	∗°	10		Nb	∞°	10		Nb	∞°	10		Nb		10		Nb	∗°	10		Nb	∗°
4	10		Nb		10				10				10				10		Nb	≡°	10		Nb	≡°
5	10²		Nb		10²		Nb	≡°	10²		Nb	≡°	10²		Nb		10		Nb		10		Nb	∗
6	10		Nb		10		Nb		10		Nb		10		Nb	∗°	10		Nb		10		Nb	
7	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
8	10		Nb		10		Nb		10		Nb		10		Nb		6		St		0			
9	0				2°			≡	1°			≡	1°		St		1°		St		0·1°		St	
10	0				0				0				0				0				0			
11	1°		Ci-St		1°		Ci-St		2°		Ci-St		0·1°		Ci-St		0				0			
12	10		Nb		10				10		Nb		10°		Nb		10		Nb		10°	NE	St	
13	10		Nb	∗°	10		Nb		10		Nb		10		Nb	∗°	10		Nb	∗°	10		Nb	∗
14	10		Nb		10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10		Nb		10		Nb	∗°
15	10		Nb	∗	10		Nb	∗°	10		Nb		10		Nb	∗°	10		Nb	◍∗°	10		Nb	
16	10		Nb	∗°	10	SW	St		10		Nb	∗	10		Nb	∗°	10		Nb	∗	10°		Nb	∗
17	9	SW	Ci-St		10				10				10°		Nb		10		St		10°		St	
18	7		St		6		Cu-Nb		6		Cu-Nb		9	N	Cu-Nb		7°	N	St-Cu		7°	N	St-Cu	
19	3°		St-Cu		7°	N	Ci-St		5°	N	Ci-St		5		Ci-Cu		7°		St-Cu		6°		St-Cu	
20	5°		St-Cu		4				2				1°		Ci-St		1°		Ci-St		1°		Ci-St	
21	10		Nb	∗	10		Nb	∗	10		Nb	∗	10		Nb	∗	10		Nb	∗²	10		Nb	∗
22	10		Nb	◍	10²		St		10		St		10		St		10		St	≡°	10		St	
23	10²		Nb		10		Cu-Nb		10		Nb		10		St		10°	E	St-Cu		8°	E	St-Cu	
24	10°	ENE	St-Cu		10°	NNE	St-Cu		10°		St-Cu		7		Ci-St		1°		Ci-St		1°		Ci-St	
25	0·1°		Ci-St		0				0				0				0				0			
26	0				1		Ci		0				0				0				0			
27	0				0				0				0				0				0			
28	3	W	Ci-St		2		Ci-St		1				0				0				0			
29	5°		Ci-St		0				0				0				8°	NNE	St		4°	NNE	St	
30	3	NE			4		Ci		3		Ci		4°	NNE	Ci-St		9°	NNE	Ci-St		5°	NNE	Ci-St	
Mean	6.9				6.9				6.6				6.5				6.7				6.1			

1900. June.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10		Nb	✱°	10		Nb	✱°	10		Nb	✱°	10		Nb		10		Nb		10		Nb	✱°
2	10		Nb	✱°	10		Nb	✱	10		Nb	✱	10		Nb	●✱°	10		Nb	✱°	10		Nb	✱°
3	10		Nb	✱°	10		Nb	✱°	10°		Nb	✱°	10°		Nb	✱°	10		Nb	✱°	10		Nb	
4	10^2		Nb	✱°	10^2		Nb	✱°	10^2		Nb	✱°	10^2		Nb		10^2		Nb	✱°	10^2		Nb	
5	10		Nb	✱	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
6	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
7	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
8	0				0				0				0				0				0			
9	0				0				0				0				0				0			
10	2°		Ci-St		1°		Ci-St		2°		St		4°		Ci-St		4°		Ci-St		1°		Ci-St	
11	1°		Ci-St		4°	SSW	St		8	SSW	St		9	SSW	St		10	SSW	Nb		10		Nb	
12	10		St-Cu		10		St-Cu		10		St		10		St		10		St		10		Nb	✱°
13	10		Nb	✱	10		Nb	✱°	10		Nb		10		Nb	✱°	10		Nb	✱°	10		Nb	✱°
14	10		Nb	✱°	10		Nb	✱°	10		Nb	✱°	10		Nb	✱°	10		Nb	✱°	10		Nb	✱°
15	10		Nb		10	SW	Nb	✱°	9	SW	Cu-Nb		7	SW	Cu-Nb		10		Cu-Nb		10		Nb	✱°
16	10		Nb	✱°	9	S	Cu-Nb		6	S	Cu-Nb		7	S	Cu-Nb		6	SW	Cu-Nb		8	S	Ci	
17	10°		St		10°		St		10°		St		10°		St		10°		St		10°		St	
18	7°	N	Ci-St		9°		St		8°		St-Cu		9		St-Cu		3°	N	St-Cu		6°		St-Cu	
19	3°		St-Cu		8°	SW	St-Cu		9°	W	St-Cu		8°	W	St-Cu		10°		St-Cu		8°		St-Cu	
20	2°		Ci-St		4°		St		4		St		10°		St		10		St	∞°	10		Nb	✱
21	10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb	●	10		Nb	●
22	10^2		St	≡°	10^2		Nb	●°	10^2		Nb	●°	10^2		Nb	●°	10^2		Nb	●°	10^2		Nb	
23	7°	E	St-Cu		7°	E	St-Cu		10	E	St-Cu		9°	E	St-Cu		10°	ENE	St-Cu		10°	EN	St-Cu	
24	2-3	E	Ci-St		3°	E	Ci-St		1-2°	E	Ci-St		3°	E	Ci-St		0-1°	E	Ci-St		2°		Ci-St	
25	0				0				0				0				0				0			
26	0				0				0				0				0				0			
27	0				0				0				1		Ci-St		1	NW	Ci-St		5	NW	Ci-St	
28	0				1°		Ci-St		7°	N	Ci-St		4°	W	Ci-St		9	W	Cu-Nb		7	W	Cu-Nb	
29	5°	NNE	St		3°	SSE	Ci-St		0-1°		Ci-St		1°	NNE	Ci-St		1°		Ci-St		2			
30	9°		Ci-St		9°		Ci-St		10°		Ci-St		8°		Ci-St		8°		Ci-St		10°		St-Cu	
Mean	6.3				6.6				6.9				7.0				7.1				7.3			

1900. July.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		St		10		St		10		St		10°		St		4		Ci-St		5	NE	St	
2	1	NE	Ci-St		1		Ci-St		3		Ci-St		9°		Ci-St		4°	NE	Ci		2°	NE	Ci-St	
3	10		St		10		St		8°	N	Ci-St		6°	N	St		8°	N	Ci-St		10°	N	Ci-St	
4	1				1	E	St		2	E	St		0.5	E	Ci-St		0.5	E	Ci-St		6°	E	Ci-St	
5	10		St		10		St		10^{2}		St		10	NE	St		10	NE	St		10	NE	St	
6	10		St		10		Nb	◍°	10		Nb	◍°	10		Nb	◍	10		Nb	◍	10		Nb	◍
7	10		Nb	◍ ✱°	10		Nb	◍ ✱	10		Nb		10		Nb	◍ ✱°	10^{2}		Nb	◍°	10^{2}		Nb	◍°
8	10		St	≡°	10		St	≡°	10		St	≡°	10		St		10°	S	St		8°	N	Ci-St	
9	10	W	St		10		St		10		Nb		10		St		10		St		10		St	
10	10	SE	St	◍°	10	S	St	●°	10		St	◍°	10^{2}		Nb	◍ ✱	10^{2}		Nb	◍ ✱	10^{2}		Nb	◍ ✱
11	10		Nb	◍ ✱	10			◍ ✱	10^{2}		Nb	◍ ✱	10^{2}		Nb	◍ ✱	10		Nb	◍ ✱	10		St	◍ ✱° ≡
12	10			≡	10			◍ ✱ ≡°	10			≡	10^{2}		Nb	◍ ✱ ≡	10^{2}		Nb	◍ ✱ ≡	10^{2}		Nb	◍ ✱ ≡
13	10			∞°	10		Nb		10		Nb		7°	N	Ci-St		8°		Ci-St		10°		Ci-St	
14	9°	SE	Ci-Cu		8°	SE	St		7°	SE	St		10		St		10^{2}		Nb	◍°	10^{2}		Nb	◍
15	10		Nb	◍ ✱°	10			$✱^{2}$	9				8	S	St		10		St		7		Ci-St	
16	10		St		10		St		10		St	◍°	10		St	◍	10		St		10		St	
17	9	S	St		10	SE	St		10	SE	St		10		Nb		10		St		10		St	
18	10		St		10		St		9		St		9	SE	St		6	S	Ci-St		6	SE	Ci-St	
19	2°		Ci-St	≡	5°		Cu		7°		St-Cu		10		Nb	◍°	10		Nb	◍°	9		Nb	
20	10		Nb		10				10				4		Ci-St		7	W	Ci-St		9	W	Ci-St	
21	4	S	St		8°	S	Ci-St		6°		Ci-St		8°		Ci-St		7°		Ci-St		6°		Ci-St	
22	2°		Ci		3°	S	St		2		St		0				0				0			
23	1		Ci		1		Ci		1		Ci		0				0				0			
24	0				0				0				0				0				0			
25	0			✱°	0				0				0				0				0			
26	0				0				0				0				0				0			
27	10		St		10		St		9		St		9°		St-Cu		10		St-Cu		10		St-Cu	
28	6	N	St-Cu		9° 1		Ci-St St		9°	S	Ci-St		4° 3	N	Ci-St St		7	SE	Ci-St		4	S	Ci-St	
29	8				10		Nb		10		Nb		10^{2}		Nb	◍°	10		Nb	◍°	10		Nb	◍
30	10	S	Nb	◍	10		Nb	◍	10		Nb	◍	10		Nb	◍°	10		Nb	≡	10		Nb	≡
31	10		Nb		10		Nb	◍°	10		Nb	◍°	10	N		◍	10		Nb		10		Nb	
Mean	7.2				7.8				7.5				7.3				7.1				7.2			

1900. July.

Havnefjord. $\varphi = 76^\circ 29'$ N. $\lambda = 84^\circ 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	7	NE	St		5°	NE	Ci-St		1°		Ci-St		1°		Ci-St		3	E	Ci-Cu		1	E	Ci-St	
2	1		Ci-St		0.5		Ci-St		1		St		3°		Ci-St		10°		Ci-Cu		8		St-Cu	
3	4	NE	Ci-St		3°	NE	Ci-St		2°	NE	St-Cu		1		Ci-St		1				1			
4	7	NE	Ci-St		9	NE	St		10	NE	St		10		St		10	SE	St		10	SE	St	
5	10	SE	St		9	SE	St		10	SE	St		10		St		10		St		10		Nb	◍°
6	10		Nb	◍	10		Nb	◍	10		Nb	◍ ∗°	10		Nb	◍ ∗°	10		Nb	◍ ∗°	10		Nb	◍ ∗°
7	9	SE	St	≡	9°	SE	St	≡	10°	SE	St		10	SE	St		10	SE	St		10		St	
8	6	N	Ci-St		5	N	Ci-St		9°	N	Ci-St		8°	N	Ci-St		10		St		10	W	St	
9	10		St		9		St		10°	S	Ci-St		10		St		10	SE	St		10	SE	St	
10	10^{2}		Nb	◍ ∗	10^{2}		Nb	◍ ∗	10^{2}		Nb	◍ ∗	10^{2}		Nb	◍ ∗	10^{2}		Nb	◍ ∗	10		Nb	◍ ∗
11	10^{2}		St	≡	10			≡	10^{2}		St		10			≡	10			≡	10			≡
12	10		St	≡	10		St	≡	10		St		10		St		5		St		10		St	
13	4°		Ci-St		3°		Ci-St		2°		Ci-St		2°		Ci-St		1		St		8°	SE	Ci-Cu	
14	10^{2}		Nb	◍	10^{2}		Nb	◍ ∗	10^{2}		Nb	◍ ∗°	10^{2}		Nb		10		Nb		10		Nb	
15	9°		Ci-St		10°		St		9°		St		10		Nb		10		Nb		10°		Nb	
16	10		St		6	SE	Ci-St		10		St		10				9	SE	Ci-St		10		St	
17	10		St		10		St		10		St		10		Nb	◍°	10		Ci-St	◍°	10		St	
18	5	S	Ci-St		6	S	St		8	S	St-Cu		3	SE	St-Cu		2°	SE	Ci-St		1°	SE	Ci-St	
19	10	S	Nb		9	E	Cu-Nb		10	E	Nb	◍°	10		Nb	∗°	10		Nb		10		Nb	
20	9	SE	St		9	S	St		10	S	St		10	S	St		8	S	St		5	S	St	
21	3°		Ci-St		1°		Ci-St		1°		Ci-St		0-1°		Ci-St		1°		Ci-St		6°		Ci-St	
22	0				0				0				0				0				1		Ci	
23	0				0				0				2°		St		2°		St		0			
24	0				0				0				0				0				0			
25	0				0				0				0				1		St		0			
26	0				8	SW	St		10	S	St	◍°	6	S	Ci-St		10			≡°	10		St	
27	10		St-Cu		8		Cu-Nb	◍°	9		Cu-Nb		6		Ci-Cu		6		St-Cu		10	N	St-Cu	
28	8°		Ci-St		10		St		10		Ci-St		10°		St		10		St		6		St	
29	10	SE	Nb		10	S	Nb	◍	10	S	Nb		10	S	Nb	◍°	10	S	Nb		10	SE	Nb	
30	10		Nb	≡	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
31	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb		9		St	
Mean	6.8				6.7				7.2				6.9				6.9				7.3			

1900. August.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		Nb		10		St		10		St		9		St		3	SE	St		10	SE	St	
2	10			● ≡	10		Nb	●	10		Nb	≡	7		Cu-Nb		7°		St		3		St	
3	0				4°	S	Ci-St		1		St		5°	S	St		6°	S	Ci-St		7°	S	Ci-St	
4	4°		St-Cu		2°		St-Cu		1°		St		1°		Ci-St		10°	E	Ci-St St-Cu		5		Ci-St	
5	2		Ci		8°		Ci-St		6		St		8	SE	St		8	SE	S		8	SE	St	
6	9				9	E	St-Cu		9	E	St-Cu		10	E	Nb		10		St-Cu		10		St-Cu	
7	0				0				0				10°		Ci-St		3		Ci-St		7°		Ci-St	
8	9°	N	St		4	E	Ci-St		4	SE	St-Cu		8°	SE	St-Cu		10°	SE	St-Cu		9²		St-Cu	
9	5°	E N	Ci St-Cu		3°		Ci		8°		Ci		2		Ci-St		1°		Ci-St		*1°*		*Ci-St*	
Mean	5.4				5.6				5.4				6.7				5.6				6.7			

1900. August.

Havnefjord. $\varphi = 76° 29'$ N. $\lambda = 84° 4'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10	SE	St		8	SE	Ci-St		10°	SE	St		10		St		10		Nb		10			● ° ° ≡
2	7°	S	St		3	S	St-Cu		3	S	Cu-Nb		3		Cu-Nb		1		St-Cu		0			
3	4	S	St-Cu		3		St-Cu		0		St		0				1		St		0		St	
4	8°	SE	St		4°	SE	Ci-St		2°	SE	Ci-St		2°		Ci-St		7°		Ci-St		5			
5	8	SE	St		10	SE	Nb	● °	10	SE	Nb	● °	9	E	Nb		10	E	Nb	● °	10		Nb	
6	4		ci ci-st		4		St-Cu		6		St-Cu		7		St-Cu		3°		ci-st st-cu		0			
7	9°		Ci St		7°		Ci-St		7° 3	N	ci-st st		8° 2	N	ci-st st		10°		Ci-St		8°		Ci-St	
8	9		St-Cu		9		St-Cu		6°		St-Cu		3°	E	Ci-St		3		St-Cu		6	E N	ci cu	
9	2°		*Ci-St*		2°		Ci-St		3°		*Ci-St*		4		Ci-St		3°		*Ci-St*		2°		Ci-St	
Mean	6.9				5.6				5.6				6.1				5.3				4.6			

1900. September.

Gaasefjord from the 18th. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
11	10				10				10			
12	10			≡	5°		Ci		5°		Ci	
13	10			∞°	10				10		St	
14	9		St-Cu		10		St-Cu		10		Nb	*°
15	10		Nb	*	10²		Nb	*	10²		Nb	*
16	10		Nb		8°	E	Ci-St		8	N	St-Cu	
17	10		St	*°	10		St		10	NW	St	∞°
18	10		St		10		Nb		9		St	
19	10				10		St		10		St	
20	10		Nb	*°	10		Nb	*°	9		St	
21	10		St		10		St		9		St	
22	8		St		9		St		9		St	
23	1		St		3°		Ci		4°		Ci	
24	9				9		St	*°	7		St-Cu	
25	10		Nb	*°	10				10			
26	10		Nb		10		Nb	*°	10		Nb	*°
27	10		Nb	*°	10		Nb	*°	10		St	
28	10°			*°	4		St		9		St	
29	9				9		St		8		St	
30	8		St		10		St		10		St	
Mean*	9.2				8.8				8.8			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
11	10				10				10			
12	3°		Ci-Cu	≡	8		St-Cu	∞	10		Nb	
13	10		St		10		St		10		St	
14	10		Nb	∞°	9		Nb		5		Ci-Cu	
15	10		Nb	*	10		Nb	*	10		Nb	*
16	6		St-Cu		10°		St-Cu		10°		St-Cu	
17	3		Cu-Nb		8		St		10°		St	*°
18	8		St		7°		St-Cu		8		St-Cu	
19	10		St		1				10			*°
20	10		Nb	*°	10				10		St	*°
21	10	N	St		9	N	St		10	N	St	
22	5		St	≡°	6°		St-Cu		7°		Ci-St	
23	7		St		4		St		3		St	
24	3		Ci-Cu		5°	SE	Ci-Cu		3°	SE	Ci-Cu	
25	10		Nb	*°	10		Nb	*°	10		Nb	*°
26	10		Nb	*°	10		Nb		10		Nb	*°
27	0				0				0			
28	6		St		7°	E	Ci-St		8°		Ci-St	
29	5°		St		8°		St		5°		St	•
30	8°		St		8°		St		2°		Ci-St	
Mean*	7.2				7.5				7.6			

* 11th to 30th. 11th to 17th under way.

1900. September.

Gaasefjord from the 18th. $\varphi = 76^\circ 49' N.$ $\lambda = 88^\circ 40' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
11	10		Nb		10			≡	10			≡	10			≡	10			≡	10			≡ ∞°
12	10		Nb		9		St-Cu		10		St-Cu		10		St		10		St		10			
13	10		St	*°	10		St		10^2		St	*	10		St		10		St	*	10		St	
14	7			∞°	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	*°
15	10		Nb	*	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb		10		Nb	
16	9		St-Cu		3		Ci-St St		3		Ci-St		2		St		4		St		10		St	
17	10				10		St		10		St	≡	10		St		9		St		10		St	
18	10		St		10		St		10		St		10		Nb		10		Nb		10			
19	10			*	10		St		10		St		10		St		10		St		10		St	
20	10		St	*°	10				10		St	*°	9		St	*°	9		St		10		St	
21	10		St	*°	10		St	*°	10		Nb		10	N	St		10°	N	St		10		St	
22	10°	N	St		10	N	St		10		St		3		St		2		St	≡°	2		St	≡*°°
23	2	N	St		6		St-Cu		4°	N	St-Cu		4		St		5		St		8			
24	5°		Ci-Cu		2°		Ci-Cu		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
25	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	
26	10		Nb		10		Nb		10		Nb		10^2		St		10		St		10		Nb	*°
27	0			⊹	6		Cu-Nb		10		Nb		10			*°	10			*°	10			*°
28	6°		Ci-St		7		St	*°	4°		St		4		St		2		St		10			
29	9		St-Cu		7		St-Cu		10		St		6		St		3		St		6			
30	1°		Ci-St		1		St		2		Ci-St		4		St		4		St		5		St	
Mean*	8.0				8.0				8.6				8.1				7.9				9.1			

* 11th to 30th. 11th to 17th under way.

1900. October.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	10		St	*°	10		Nb	*°	10		Nb	*°
2	10			*°	10		Nb		10		Nb	*°
3	2		St		1°		St		3		St-Cu	
4	10				10		Nb		10		Nb	
5	10		St	*°	10		Nb	*°	10^2		Nb	*°
6	3			∞°	9		St	∞°	5		St	∞°
7	3		St		2		St		3		St	
8	10		St		10		St		10		St	
9	8		St		9		St		5		St	
10	7°	N	St	∞°	2		St		4		St	
11	0				3°		St-Cu		5°		St-Cu	
12	4°		Ci-St		1		St		1			
13	5°		St-Cu		10			∞°	10			∞°
14	0				1		St		9°		St	
15	10°		Nb	*°	4°		Nb		9°		Nb	*°
16	9		St		10		St	∞°	10		St	∞°
17	0				10°		St	∞°	10°		St	∞°
18	10		Nb	*°	10		Nb		10		Nb	
19	0				0				7		St	*°
20	5		St		8		St		10		St	
21	10				10		St		10			
22	10			*°	10		Nb	*°	10		Nb	*°
23	1		St		1		St		1		St	
24	10		Nb		10		Nb		10		Nb	
25	10°				10				0			
26	10		Nb		9		St		0		St	
27	3		St		0				0			
28	10		Nb		10		Nb		10		Nb	
29	10		Nb		10		St		0			
30	10		Nb		10		Nb		10		Nb	*
31	10		Nb		10		Nb		1		St	
Mean	6.8				7.1				6.6			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		Nb	*°	10		Nb	*°	10		Nb	*°
2	10		Nb	*°	6		Nb	*°	8		Nb	*°
3	9		St-Cu		10		St-Cu		10		Nb	*°
4	10^2		St		10		Nb	*°	10		Nb	*°
5	10^2		Nb	*°	10		Nb	∞°	10	N	St-Cu	
6	4		St	∞°	7°		Ci-St		9°		Ci-St	
7	7		Ci-St		8°		Ci-St		7		Ci-St St-Cu	
8	0				0				1		St	
9	4		St-Cu		2		St	∞°	2		St	∞°
10	9		St		10°		Cu-Nb	*°	10		Cu-Nb	*°
11	7°		Ci-St		3		St		3		St	
12	1		St		2		St		1		St	
13	10		St		10°		St		4		St	
14	10°		Nb	*°	8°		Nb	*°	8°		Nb	*°
15	10		Nb	*°	9°		Cu-Nb	*°	10°		Cu-Nb	
16	10°		St	∞°	8		St		10°		St	∞°
17	10		Nb	*°	10		Nb	*°	10		Nb	*°
18	10		Nb		10°		St	∞°	10°		St	∞°
19	10		St		10		St		10		Nb	
20	10		St		10		St		10		St	
21	10		St		10		Nb		10		Nb	
22	10		Nb		10		Nb	*°	10		Nb	*°
23	9°		St		10		St		10		St	
24	10		Nb		10		Nb		6		Cu-Nb	*°
25	7		Cu-Nb		10			*	10°	S	Cu-Nb	*°
26	10		Nb	*°	10		Nb	*	10		Nb	
27	0-1		St		0-1		St		0-1		St	
28	10		St		9		St	∞°	7°		St	
29	3°		St		9°		St		10°		St	
30	10		Nb	*°	10		Nb	*°	10		Nb	*°
31	0				0-1		St		1		St	
Mean	7.8				7.8				7.7			

1900. October.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	10			*°	10			*°	10			*°
2	5		St	∞°	6		St	∞°	8			∞°
3	10		Nb		10		Nb	*°	10		Nb	*°
4	7^{0}		Ci-St		10^{0}		St		10^{0}		St	
5	10	N	St-Cu		10	NW	St-Cu		10			∞°
6	6^{0}		Ci-St	∞°	5		Ci-St	∞°	6^{0}		Ci-St	∞°
7	7^{0}		St-Cu		6		Ci-St St		6		St	
8	1		St		1		St		0			
9	2		St		3		St	∞°	3		St	
10	9		Cu-Nb		10^{2}		Nb		2		St	
11	6^{2}		Ci-St		2^{0}		St		3^{0}		St	∞°
12	4^{0}		St		5^{0}		St		2		St	
13	5^{0}		Ci-St		10^{2}		St		1		St	⊛ *°
14	7^{0}		Nb	*°	7^{0}		St	∞°	4		St	
15	10^{0}		Nb	*°	10		Nb	*°	10		Nb	*°
16	10^{0}		St	∞°	10				10^{0}		St	∞°
17	10		Nb	*°	4		St	*°	9		Nb	
18	6^{0}		St		2		St		0			
19	10		Nb		10		Nb		10		Nb	
20	10		St		10		St		10		St	
21	10		Nb		10		Nb		10			*°
22	10		Nb		10		Nb		5		St	
23	10^{0}		Nb		10		Nb		10		Nb	
24	10		Nb	*°	10		Nb	*	10		Nb	*
25	8^{0}		Cu-Nb		7		St		10		Nb	
26	4		Cu-Nb		1		Cu-Nb		0			
27	4^{0}		St		10		Cu-Nb		10^{2}		Nb	
28	9^{0}		St		10^{0}		St		10			
29	10		Nb		10		Nb		10		Nb	*
30	10		Nb		10		Nb	*°	10		Nb	
31	1		St		1		St		10		Nb	
Mean	7.4				7.4				7.1			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10			*°	10			*°	10			*°
2	10		Nb	*°	9		Nb	*°	4		St	
3	10		Nb	*°	10		Nb	*°	10		Nb	
4	9^{0}		St		10		St	*°	10		St	
5	10			∞°	10			∞°	10			∞°
6	9^{0}		Ci-St	∞°	9		Ci-Cu		2		Ci-St	
7	3		St		4		St-Cu		6		St-Cu	
8	0				6		St		5		St	
9	10^{0}		St		9^{0}		St	∞°	4^{0}	N	St	∞°
10	6^{0}		St		8^{0}		St		0			
11	7^{0}		Ci-St		6^{0}		Ci-St		5^{0}		Ci-St	
12	1		St		1		St		2		St	
13	0			∞°	0				0			*°
14	10		St		10^{0}		Nb	*°	2^{0}		St	∞°
15	3		Cu-Nb		1		St	∞	8		St	
16	5		St		7		St		10		St	
17	10		Nb	*°	9		Nb	*°	10		Nb	*°
18	0				0				0			
19	10		Nb		10		Nb		10		Nb	
20	10				10				10			
21	10				10			*°	10			
22	4		St		0				1		St	
23	10^{2}		Nb	*°	10^{2}		Nb	*°	10^{0}		Nb	*°
24	10		Nb	*°	10		Nb	*	10		Nb	*°
25	10		Nb		10		Nb		10		Nb	*°
26	0				0				0			
27	10		Nb	*°	10		Nb	*°	10		Nb	*°
28	10		St		10		St		9		St	
29	10		Nb	*°	10		Nb		10		Nb	
30	10		Nb		10		Nb		10		Nb	
31	10		Nb		4		St		10		St	
Mean	7.3				7.2				6.7			

1900. November.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	5		St		0				0				2		St		5		St	∞°	10°		St	∞°
2	0			∞	0				0				2		St	∞°	5°		St	∞°	4°		St	∞°
3	5°		St		3°		St		2°		St		10°		St		10°		St		10°		St	
4	10		St		10		St		5°		Ci		10		St		10		Nb		10		Nb	
5	10		Nb		10				10			*°	10		Nb		4		St		10		Nb	*°
6	10		Nb		9		Nb		2		St		3		St		1		St		3°		St	
7	0				0				0				3		St		3°		St		2°		St	
8	3		St		2		St		1		St		3		St		4		St		2		St	
9	3°		St		2		St		2		St		2		St		2		St		1		St	
10	0				0				0				0				0				0			
11	0				2		Ci-St		3		Ci-St		8		St		10°		St		10		St	
12	5°		St		9°		St		10		St		8		St		10		St		9		St	
13	10		St		10		St		10		St		10			∞°	2		St		1		St	
14	3		St		4		St		3		St		3		St		4		St		1		St	
15	0				0				0				0				0				0			
16	0				0				1		St		1		St		0-1		St		3°		St	
17	0				0				0				0				1		St		1		St	
18	0				0				0				1		St		6		St		7		St-Cu	
19	0				0				0				0				0				1		Ci-St	
20	0				0				0				3		St	∞°	2		St		2		St	
21	0				0				0				0-1	S			2		St		3		St	
22	0				0				0				3		St		0				6		St	
23	0				0				0				0				0				0			
24	0				0				0				1	S		∞°	3		St	∞°	10			∞
25	10			*°	0				2		St		6		St		4°		St		3°		St	
26	0			∞°	0				0				0				2		St		2		St	
27	0				0				0				0-1		St		1		St		10°		St	
28	0				0				0				1		St		7		Cu-Nb		9		Cu-Nb	
29	8		St		8		St		3		St		6		St		5		Cu-Nb		7		Cu-Nb	
30	4		Nb		6		Nb		8		Nb	*°	6		Nb	*°	8		Nb		8			∞°
Mean	2.9				2.5				2.1				3.5				3.7				4.8			

1900. November.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 84^\circ 40'$ W.

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Midt. Cloud. Am.	Dir.	Fm.	Pr.
1	5		St	∞°	5		Cu-Nb	∞°	1		St		2°		St	∞°	8°		St	∞°	2		St	∞°
2	10°		St	∞°	5°		St	∞°	9°		St	∞°	7°		St	∞°	3°		St		5°		St	
3	10°		St		4		St		10°		St		10		Nb	*°	10		Nb	*°	10		St	
4	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	*°	10		Nb	
5	10		St		8°		St		5		St		4		St		10		Nb	*°	10		Nb	
6	1		St		0				0				0				0				0			
7	2		St		0				2°		St		3°		St		4°		St		0			
8	3		St		3		St		0				2°		St		3°		St		3°		St	
9	1		St		1		St		0				0				0				0			
10	0				0				0				0				0				0			
11	7		St		10		St		10		St		10		St		7°		St		2°		St	
12	2		St		1		St		2		St		5		St		4		St		10		St	
13	1		St		1		St		2		St		2		St		3		St		3		St	
14	1		St		0-1		St		0				1		St		0				0			
15	0				0				0				0				0				0			
16	2°		St		1		St		1		St		7				10				2			
17	1		St		1		St		2		St		2		St		2		St		0			
18	4		St		1		St		0				0				0				0			
19	3		Ci-St		0				0				0				0				0			
20	1		St		0				0				0				0				0			
21	2		St		2		St		2		St		3		St		2		St		0			
22	9		St		2		St		4		St		4		St		4		St		0			
23	0				0				0				0				0				0			
24	10			∞	10			∞	10			*	9			∞°	9			*°	10			*°
25	4		St		5		St		3		St		3		St		1		St		0			
26	2		Ci-St		2		St		2		St		2		St		0				0			
27	3		St		3		St		0				2		St		0				0			
28	9		Cu-Nb		10		Cu-Nb		7		Cu-Nb		10		Nb		8		Nb		7		Nb	
29	6		Cu-Nb		5		Cu-Nb	*°	5		Nb	*°	5		Nb	*°	5		Nb	*°	4		Nb	
30	7			∞°	7			∞°	6			*°	6			*°	6		St		8		St	
Mean	4.2				3.3				3.1				3.6				3.6				2.9			

1900. December.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Noon Cloud. Am.	Dir.	Fm.	Pr.
1	0				0				0				0				0				0			
2	0				0				0				0				8°		Cu-Nb		7		Cu-Nb	
3	10			∞°	10			$\ast$	10			$\ast^{\circ}$	10		Nb	$\ast^{\circ}$	10		Nb	$\ast^{\circ}$	10		Nb	$\ast^{\circ}$
4	6°		St		8°				2°		St		1		St		1		St		1		St	
5	2		St		2		St		0				1		Ci-St		1		St		1		St	
6	2		Ci-St		0				0				0				0-1		St		0-1		St	∞°
7	0				0				0				0				4°		St		10°		St	
8	2		St		2°		St		1		St		4		St		1		St		1		St	
9	3		Ci-St		0				2		Ci		1		Ci-St		0				0			
10	0				0				0				0				0				0			
11	0				0				2	SW			0			∞°	0-1°		St	∞°	0			
12	10		Nb		8		Ci-St		10		Nb		10			∞°	10		St		10		Nb	$\ast^{\circ}$
13	5°		St		5°		St		2		St		2		St		2		St	∞°	1		St	
14	0				0				0				4°		St		2		St		1		St	
15	10			∞°	10			∞°	10			∞°	10			∞°	10				10			
16	10				10			$\ast^{\circ}$	0				10		St		6		St		3		St	
17	1				0				0				0				1		St		2		St	
18	0				0				0				0			∞°	1		St		1		St	
19	0				0				0				0				0				1		St	
20	0				0				0				0				0				0			
21	10				2				0				1		St		1		St		1		St	
22	1		St		0				0				0				0				0			
23	0				0				0				0				1		St		1		St	
24	0				0				0				0				0				0			
25	0				0				0				1		St		1		St		1		St	
26	0				10		St		10		St		0				2		St		1		St	
27	0				0				0				0				0-1°		St		3°		St	
28	10			∞°	0				0				0				1		St		1		St	
29	0				0				0				0				0				0			
30	0				0				0				0				9°		St		9°		St	∞°
31	8		St		5°		St		4°		Ci		3		St		2		St		2		St	
Mean	2.9				2.4				1.7				1.9				2.5				2.5			

1900. December.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				0				0				2°		St		0			
2	9		Cu-Nb		10		Nb		10		Nb		10		Nb		10		Nb	*°	10		Nb	*°
3	10		Nb	*°	8°		St	∞°	10°		St	∞°	3		St-Cu	∞°	3			∞°	3		St	
4	0-1		St		0				0				2		St		2		St		3		St	
5	1		St		3°		Ci-St		9°		Ci-St		6			∞°	3		Ci-St	∞°	5		Ci-St	∞°
6	0-1		St		0				0				0				0				2°		Ci-St	
7	1		St		4		St		3		St		10°		St		4°		St		9		St	
8	0				0				0				0				0				3		Ci-St	
9	0				0				0				0				0				0			
10	0				0				0				0				0				0			
11	1°		St		0				0			∞°	10				10		Nb	*°	10		Nb	
12	10		Nb	*°	10°		Nb	∞°	10°			∞°	10°			∞°	10°			∞°	0			
13	1		St		0				0				0				0				0			
14	1		St		1		St		2		St	∞°	2		St	∞°	0			∞°	10			∞
15	10				10			*°	10			*°	10				10			*°	10			
16	1		St		1		St		0				0				0				0			
17	1		St		0				0			*°	0				0				0			
18	1		St		1		St		0				0				0				0			
19	1		St		1		St		0				0				0				0			
20	0				0				0				0				4				8			
21	1		St		1		St		1		St		1		St		1		St		1		St	
22	1		St		0				0				0				0				0			
23	1		St		1		St		1		St		1		St		1		St		0			
24	0				0				0				0				0				0			
25	0				0				0				0				0				0			
26	0				0				0			∞°	0				0				0			
27	0		St		0				0				4°		Ci-St		3°		St		0			
28	1		St		2		St		1		St		0				0				0			
29	0				0				0				0				0				1°		St	
30	10°		St	∞°	2		St	∞°	6		St		8		St		9		St		9		St	
31	4°		St		4°		Ci-Cu		3		St-Cu		4°		Ci-St		0			∞°	0			∞°
Mean	2.2				1.9				2.1				2.6				2.3				2.7			

1901. January.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2^h				4^h				6^h				8^h				10^h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0			∞°	0				0				0			∞°	0			∞°	0			∞°
2	0			∞°	0				3			∞°	0			∞°	0			∞°	0			∞°
3	0				0				0				0				4°		St		3		St	
4	10	NW	St	∞°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
5	4		St		3°		Ci		0				3		Ci-St		5		St		3		St	∞°
6	2			∞	1			∞	1			∞	0			∞	0			∞°	1		St	
7	10		St	∞°	10		St	∞°	10		St	∞°	10		St		9		St	∞°	7		St	
8	0				0				0				0				1		St		0			∞°
9	0				0				0				0				3		St		3		St	
10	0			∞°	0			∞°	0			∞°	0			∞°	1°		St	∞°	1		St	
11	0			∞°	0				0				0				1		St		3		St	
12	4			∞°	4			∞°	4			∞°	4			∞°	4°		St		2		St	
13	0				0				0				1			∞°	2			∞°	2			∞°
14	0				0				0				0				1		St		0			
15	0				0				0				0				0-1		St		0			
16	0				0				0				0				0				0			
17	0				0				0				3		St		4		St		5		St	
18	0				0				0				0				0				0			
19	0				0				0				0				0				0			
20	0				0				0				0			∞°	0			∞°	0			∞°
21	0				0				0				0				0			∞°	0			∞°
22	0				0				0				0				1°		St		0			
23	0				0				0				0				0				0			
24	0				0			∞°	0				4		St	*°	4			∞°	3			∞°
25	4°		St		0				0				3		St		3		St		1°		St	
26	0				0				0				0				0				0			
27	0				0				0				4°		St		5°		St		2°		St	
28	0				0				0				0				1		St		1		St	
29	0			∞°	0			∞°	0			∞°	0			∞°	0			∞°	4		St	
30	0				0				0				0				4°		Ci-St		10		Ci-St	
31	9		Ci-St		8°		Ci-St		5°		Ci-St		9°		Ci-St		8°		Ci-St		1		Ci-St	
Mean	1.4				1.2				1.1				1.6				2.3				2.0			

1901. January.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Midt. Cloud. Am.	Dir.	Fm.	Pr.
1	0			∞°	0			∞	0			∞°	0			∞°	0			∞°	0			
2	0				0				0				0			∞°	0			∞°	0			
3	10°		St	∞°	10			∞°	2°		St		10°	NW	St	∞°	10	NW	St	∞°	10	NW	St	∞°
4	10		Nb	*°	10		Nb	*°	10			∞°	10		St	∞°	10		Nb	*°	10°		St	∞°
5	3		Ci-St		3		Ci-St		3			∞°	2			∞°	2			∞°	2°		Ci-St	∞°
6	1		St		1		St		3		St		4		St		10		St	∞°	10		St	∞°
7	10		St		8			∞	6		St	∞°	7		St		7		St		0			
8	1°		St		0				0				0				0				0			
9	2°		St	∞°	0			∞°	0				0				0			∞°	0			∞°
10	1		St		1			∞°	1			∞°	0			∞°	0			∞°	0			∞°
11	3			∞°	3			∞°	3			∞°	3			∞°	3			∞°	4			∞°
12	3		St		2°		St		2		St		2		St		0				0			
13	3°		St		3		St		3			∞	2			∞	2				1			
14	0				0				0				0				0				0			
15	0-1		St		0-1		St		0-1		St		0				0				0			
16	0				0				0				0				0				0			
17	3		St		4		St		2		St		2		St		0				0			
18	0				0				0				0				0				0			
19	0				0				0				0				0				0			
20	10			∞°	10			∞°	7			∞°	3			∞°	0				0			
21	0			∞°	0			∞°	0				0				0				0			
22	1		St		1		St		0				0				0				0			
23	1		St		10		St		0			∞°	0			∞°	0			∞°	0			
24	3		Cu-Nb	*°∞°	1		St		0				3°		St		3		St		3°		St	
25	1		St		1		St		0				0				0				0			
26	0				0				0				0				1		St		0			
27	1°		St		0				1°		St		0				0				0			
28	1		St		2		St		3°		St		3°		St		3°		St		0			∞°
29	9		St		8		St		3		St		4	NE	St		8°		Ci-Cu		5			
30	10° 3	SSW	Ci-St St		10°		Ci-St		10°		Ci-St		8°		Ci-St		7°		Ci-St		8		Ci-St	
31	2		Ci-St		0			∞°	0				10	SSE	St		10		Nb		10°		St	
Mean	2.8				2.9				1.9				2.4				2.5				2.0			

1901. February.

Gaasefjord. $\varphi = 76^{\circ} 49'$ N. $\lambda = 88^{\circ} 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10				10		Nb		10		Nb		10		Nb		10		St		3		St	
2	0				0				0				8		St		8			∞°	6			∞°
3	10		Nb	∗°	10		Nb	∗°	8		St	∞°	9°		St		4°		St		2		St	
4	0				0				0				0				0				0			
5	0				0				0				0				0				0			
6	0				3		Ci-St		0				0				0				0			
7	3		Ci-St		2°		Ci		0				0				1		St		1		St	
8	3		St		0				0				2		St		2		St		3°		St	
9	1		St		2		St		2				3		St		5°		St		5°		St	
10	10			∗°	10		Nb	∗°	8		St		10		Nb		10		Nb		10^2		Nb	∗°
11	0				0				0				2		St		3		St		1		St	
12	0				0				0				0-1°		St		1°		St		3°		Ci-St	
13	0				0				0				0-1°		St		1		St		2		St	
14	10				10				10				10^2		Nb	∗°	10^2		Nb	∗°	10^2		Nb	∗°
15	8			∗°	8			∗°	8				10		St		10		St		10		St	
16	0				0				0				4		St		3°		St		3°		St	
17	3		St		0				0				8		St		10		Nb		10			∗°
18	0				0				0				0				0		St	∞°	0		St	
19	0				0				0				10°		St	∞°	1		St		1		St	
20	0				0				0				0				3°		St		4°		Ci-St	
21	1				0				0				0				7		St		1		St	
22	10				8				10		Nb		10^2		St		3^2		St		7^2		St	
23	0				0				0				0				0				0			
24	0				0				0				2		St-Cu		1		St		1°		St	
25	10		Nb		10		Nb		10		Nb		10		Nb	∞°	10		Nb	∞°	10		St	
26	7			∗° ∞°	6		St		2		St		3		St	∞°	8		St		5		Ci-St	
27	5°		St	∞°	4		St	∞°	10			∞°	5		St		3°		St		2°		St	
28	0			∞°	0			∞°	3		St	∞°	3			∞°	4			∞°	4			∗° ∞°
Mean	3.3				3.0				2.9				4.3				4.2				3.7			

1901. February.

Gaasefjord. $\varphi = 76^{\circ} 49'$ N. $\lambda = 88^{\circ} 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	2	NW	St		8	NW	St		10		St		10		St		10			≡°	10	N	St	≡°
2	5		Ci-St	∞°	6		St		10			∞°	10				10		Nb	*°	10		Nb	*°
3	1		St		0				0				0				0				0			
4	0				0				0				0				0				0			
5	1		St		1		St		0				0				0				0			∞°
6	1		St		3°		St		0				0				0				1		St	
7	1		St		1		St		1		St		1		St		0				0			
8	2^{2}		St		1		St		0				0				0				0			
9	5°		St		8		St		10			*°	10			*°	10			*°	10			*°
10	10^{2}		Nb	*°	10^{2}		Nb	*°	10^{2}		Nb	*°	10^{2}		Nb	*°	10^{2}		Nb	*°	0			
11	1		St		0-1		St		1		St		0-1		St		0				0			
12	2°		Ci-St		1°		St		0				0				0				0			
13	6		St		6		St		10		St		10				10				10			
14	10^{2}		Nb	*°	10^{2}		Nb	*°	10			*°	10			*°	9			*°	9			*°
15	10		St		9		St		1		St		0				0				0			
16	2°		St		2°		St		2°		St		2		St		2		St		2		St	
17	5		St		2		St		2		St		0				0				0			
18	0				0				0				0				0				0			
19	1		St		2		St		0				0				0				0			
20	2°		St		5°		Ci-Cu St		10°		Ci-St		10				10				2		St	
21	0-1		St		10		St-Cu		10		Nb		10				10				10			
22	3		St		2		St		1		St		1		St		0				0			
23	0				0				0				0				0				0			
24	5°		Cu-Nb		10	S	Nb		10	S	Nb		10		Nb		10		Nb		10		Nb	
25	9			≡	9			*≡°	8		St	∞°	7			∞°	5		St	∞°	8			∞°
26	10		Ci-St		5			∞	0			∞°	0				1^{c}		St		2°		St	
27	2°		St		2°		St		0				0				0				2°		Ci-St	
28	5			∞°	5		St		3		St		2		St	∞°	3°		St		0			
Mean	3.6				4.3				3.9				3.7				3.6				3.1			

1901. March.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	0				0				0			
2	0				0				0			
3	0				2				5			
4	0				0				0			
5	1		St		0				1		St	
6	0				0				0			
7	10		Nb		10		Nb		6°		Nb	
8	10		St	*°	10		St		10		St	
9	0				2		St		4		St	
10	0				0				3°		St	
11	0				0				0			
12	0				0				0			
13	0				0				0			
14	2		St		3°		St		5°		St	
15	4°		St		10			∞°	8		St	
16	1		St		1°		St		3°		St	
17	0				0				0			
18	2		St		1		St		3		St	∞°
19	3°		St		2		St		5		St	
20	0				0				0			
21	0				0				0			
22	0				0				0			
23	2		St		3		St		4		St	
24	10			∞°	10		St		7		St	
25	10		Nb		9°		Nb		9		Nb	
26	10		Nb	*°	10			*°	10			*°
27	5		St		7		St		5		St	
28	2°		St		1				0			
29	9		St		10			∞°	10			∞°
30	3		Cu		3		Ci		10		Ci	
31	7				10		St		2		St	
Mean	2.9				3.4				3.5			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0			
2	3		St		9		St		10		St	
3	5		St		2		St		3°		St	
4	0				0				0			
5	8		St-Cu		5		Ci-St		1		Ci-St	
6	2		St		4°		St		4°		St	
7	8°		Nb		1		St		9		St	
8	6°		St		4°		St		4°		Ci-St	
9	9		St		7		St		5		St	
10	0				0				0			
11	0				0				0			
12	1°		St		1°		St		1°		St	
13	0				0				0			
14	2		St		5		St		2		St	
15	5		St		10°		St	∞°	7°		Ci-St	
16	3°		Ci-St		3°		St		2°		St	
17	0				1°		Ci-St		0			
18	4		St		4		St		4		St	
19	3			∞°	2°		St	∞°	3		St	
20	0				0				0			
21	0				0				0			
22	0				0				0			
23	6	SE	Ci		4	SE	Ci		10		Ci	
24	10		St		10		St		10		St	
25	10		Nb	*°	7		Cu-Nb		8			∞°
26	10		Nb		10		Nb		10		Nb	
27	9		St		10°		St		10		St	
28	0				0				1°		Ci-St	
29	10²		Nb	*°	10		Nb	*°	10			*°
30	10				10²		Nb		10		St	
31	1		St		2°		Ci-St		0			
Mean	4.0				3.9				4.0			

1901. March.

Gaasefjord. $\varphi = 76^\circ 49' $ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10°		Ci-St		10		St		3°		St		1°		St		1°		St		1°		St	
2	10		St		7°		St		0				0				0				0			
3	3°		St		5°		St		2		St		0				0				0			
4	0				0				0				0				0				1		St	
5	0				0				0				0				0				0			
6	10		St		10°		St		10		Nb	*°	3		St		10		Nb		10		Nb	
7	10		St		8		St		10		St		3		St		1		St		0			
8	6°		St		4°		Ci-St		3°		St		0				0				0			
9	3		St		2		St		1		St		0				0				0			
10	0				0				0				0				0				0			
11	0				0				1		St		0				0				0			
12	1°		St		1°		St		1°		St		1		St		0				0			
13	0				0				0				0				1		St		2		St	
14	5		St		7°		Ci-St		5°		St		3°		St		4°		St		5°		St	
15	5°		Ci-St		4°		St		3°		St		3°		St		3°		St		1		St	
16	1°		St		1°		Ci-St		1°		St		1°		St		2		St		0			
17	0				0				0				0				0				0			
18	4		St		5		Ci-St		5		St		5°		St		3°		St		2°		St	
19	3		St		2			∞°	2			∞°	1			∞°	0				0			
20	0				0				0				0				0				0			
21	0				0				0				0				0				0			
22	0				0·1°		St		1°		St		2°		Ci-St		2°		St		2°		St	
23	8	S	Ci		10°	S	St		4°	S	St		6			∞°	8		St	∞°	10		Nb	*°
24	10		Nb	*°	10°		St		10°		Nb	*°	10°		Nb	*°	10		Nb	*°	10		Nb	*°
25	10		Cu-Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	7		St	
26	7		St		4		St		8		St	*°	2		St		3			*°	4			*°
27	10		St		10°		St		10		St		10°		St		5°		St		4		St	
28	2°		Ci-St		2°		Ci-St		5°		Ci-St St		10°		St		7°		St		8°		St	
29	10			*°	10			*°	10			*°	10			*°	8		Cu-Nb	*°	5°		Ci	
30	3°		Ci-St		9°		Ci-St		10°		St		10		Nb	*°	10		Nb	*°	10			*°
31	0				0				0				2°		St		2°		St		1		St	
Mean	4.2				4.3				3.7				3.0				2.9				2.7			

1901. April.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	1		St		4°		St		1°		St		0				0				2		St	
2	0				0				10°		Ci-St		10°		Ci-St		10°		Ci-St		10°		Ci-St	
3	10°		St		10°		Nb	*°	10°		Nb		8°		St		7°		St		10°		St	
4	1		St		5°		Ci		3°		Ci		5		St-Cu		3		St	∞°	4°		Ci-St	∞°
5	5				4				2	S			3		St		4		St		10			∞°
6	10		Nb	*°	10		Nb	∞°	10		Nb	∞°	10		Nb	*°	10°		Nb	*°	10°		Nb	
7	6		St		5		St		4		St		3		Ci-St		6°		St		2		Ci-St	
8	1°		St		0				0				0				0				0			
9	1		St		1		St		0				0				0				0			
10	0-1		Ci-St		2		St		0				0				2°		Ci-St		4°		Ci-St	
11	10		Nb	*°	10		Nb	*°	10		Nb	∞°	6		St		5		St		2		Ci-St	
12	0				0				1		St		0				0				0			
13	1		St		3°		Ci-St		4°		Ci-St		3°		Ci-St		4°		Ci-St		7°		Ci-St	
14	0				0				5		St		5		Ci-St		3		Ci-St		3		Ci-St	
15	4°		St		3°		St		3°		St		2		St		2°		St		2		St	
16	10°	N	St		10		St		10		St		10		Nb		10		Nb	*°	10		Nb	
17	10		St		10		St		9°		St		10°		St	∞°	8°		St		10°		Nb	∞°
18	10		Nb	*°	10°		Nb		10°		Nb		10°		Nb		2°		Ci-St		8°		Ci-St	
19	4°		St		5		St		6		St		5°		St		4°		St		2°		St	
20	0				0				0				0				0				0			
21	0				0				1°		St		1°		St		0-1		St		0			
22	6		Ci-St		3°		Ci-St		2°		Ci-St		1°		Ci-St		1		Ci-St		0			
23	4		St		5°		St		3°		St		3		St		4		St		8		St	∞°
24	1		Cu		0				0				1°		Ci		1°		Ci		0-1		Ci-St	
25	2		St		1		St		0				0				0				0			
26	1°		St		1		St		1		Ci		1		Ci-St		1			∞°	1			∞°
27	6		Nb	*°	10		Nb	*°	10		Nb		10		Nb	*°	10°		Nb		10°		St	
28	2				1		Ci-St		2°		St		10°		Nb		4	SE	Cu-Nb		3°	SE	Ci-St	
29	10		Nb		10		Nb	*°	10		Nb		10		St		10		Nb		10		Cu-Nb	
30	3		St		3		St		4		St		2°		St		2		St		3		Cu-Nb	
Mean	4.0				4.2				4.4				4.3				3.8				4.4			

1901. April.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	1°		St		1°		St		0				0				0				0			
2	10°		Ci-St		10°		Ci-St		10°		Ci-St		10°		St		10°		Ci-St		10°		St	∞°
3	7°		St		4°		St		2		St		2		St		1		St	∞°	1		St	∞°
4	4		Cu		2°		Ci-St		8°		St		3°		St		2°		St		7	S	St	
5	9		St		10		St		10			∞°	10			∗°	10		Nb	∗°	10		Nb	
6	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10²		Nb	∗°	10		Nb	
7	0				0				0				0-1		St		0-1		St		1		St	
8	0				0				0				0-1		St		1		St		1		St	
9	0				0				0				0				0				0			
10	10°		St		10		Nb	∗°	10		Nb	∗°	10²		Nb	∗°	10²		Nb	∗°	10		Nb	∗°
11	2°		Ci-St		4°		Ci-St		4		Ci-St Cu-Nb		1		St		2		St		0			
12	0				0				0				0				3		St		2		St	
13	3°		Ci-St		2°		Ci-St		1°		Ci-St		1		St		0				1		St	
14	2°		Ci-St		1°		Ci-St		1		Ci-St		2		St		2		St		7°		St	
15	7°		St		5°		St		3°		Ci-St		1°		Ci-St		2°		St		2°		St	
16	5°		St		10		St		10		Nb		10		St		10		St		10		St	
17	10°		Nb	∗°	10°		Nb	∗°	10°		Nb		10		Nb	∗°	10		Nb	∗°	10		Nb	∗°
18	8°		St		8		St		3	SW	St		3°		St		6°		St		3°		St	
19	1°		St		2°		Ci-St		1°		St		2°		St		1°		St		1		Ci-St	
20	0				0				1°		St		1°		Ci-St		0				0			
21	0				0				1°		Ci-St		3°		Ci-St		4		Ci-St		3		St-Cu	
22	2°		Ci-St		0				0				3		St		3		St		3		St	
23	8°		St		5	N	Cu-Nb	∞°	4	N	Cu-Nb	∞°	3	N	Cu-Nb	∞°	8°		Cu-Nb	∞°	4°		Cu-Nb	∞°
24	0				0				0				1		Ci		1°		St		0-1°		St	
25	0				0				0				1°		St		0				2°		St	
26	1		St		2	SSW	St		10	SSW	St	∞°	10		St		10		Nb	∗°	6		Nb	∗°
27	8°		St		3°		Ci-St		3°		Ci-St		1°		Ci-St		8		Ci-St		2		Ci-St	
28	7		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Nb		10		Nb		10		Nb	
29	3		Cu-Nb		4		Cu-Nb		10		Nb		10		Nb		10		Nb		8		Nb	
30	2		Cu-Nb		2		Cu-Nb		3		Cu-Nb	∞°	8	N	Cu-Nb	∞°	8°	N		≡	3°	N		≡
Mean	4.0				3.8				4.2				4.3				4.8				4.3			

1901. May.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	4°	N		≡	4	N		≡	6		Cu-Nb		4°		St		5°		St	≡°	9°		Ci-St	∞°
2	0				0				0				0				0				0			
3	4		St		5	N	St		7°		Ci		10		Nb		10		Nb		10		Nb	
4	1		Cu		2°		St		2			*°	3°		St		4°		Ci-St		4°		Ci St	
5	1°		Ci-St		0				0				1°		Ci-St		2°		Ci-St		2°		Ci-St	
6	10	N	St		10		Nb		10		Nb		9	N	Cu-Nb		6	N	Cu-Nb		1		Ci-St	
7	10			*°	10		Nb	*°	10		Nb	*°	10		Nb	*° ∞°	10		Nb	*°	10		Nb	*°
8	10		Nb	*°	10°	W	Ci-St		8°		Ci		10		Nb	*°	10		Nb	*°	10		Nb	*°
9	10		Cu-Nb	*°	10		Nb		10		Nb		10		Nb	*°	10		Nb	*°	10°	SW	Cu-Nb	
10	9	S	St		8		St		6		St		5		Ci-St		5		Ci-St		9		Cu-Nb	
11	10		St		10		Cu-Nb		9		St-Cu		10		St		10		Cu-Nb		10		Nb	
12	5		Cu-Nb		9		Cu-Nb	*°	8		St-Cu	*°	10		Nb	*°	5		Cu-Nb	*°	10		Nb	*°
13	10		Cu-Nb	*°	10		St		10		St		10		Nb		9	SW	Cu-Nb		8	S	Cu-Nb	
14	10		St-Cu		5		St-Cu		10		Nb	*°	10		Nb	*°	10		Nb	*°	9		Nb	
15	10		Nb	*°	10		Nb	*°	10		Nb		10		Cu-Nb		10		Nb	*°	10^2		Nb	*°
16	0				1		Cu		0				3				5		Cu-Nb		5		Cu-Nb	
17	1°		St		0				0				0				1°		St		1°		St	
18	10		St		10		St		10		St		10		Nb		10		St-Cu		10		St	
19	10		St		10		Nb	*°	10		Nb	*°	10°		Nb	*°	10°		Nb	*°	10		Nb	*°
20	3	N	St		2	N	St		9	N	St		7	N	Cu-Nb		10	N	Cu-Nb	*°	9	N	Cu-Nb	
21	4				0				4				10°		St		8°		St		10°		St	
22	10		Nb		10		Nb		10		Nb		9		Cu-Nb		9		Cu-Nb		10		Cu-Nb	
23	10		Cu-Nb		10		St		10		St		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb	
24	10		Cu-Nb		10		Nb		10		Nb	*°	10		Nb	*°	10		Nb		6	W	Ci-St	
25	10		Cu-Nb		10	NE	Cu-Nb	*°	9	N	Cu		10°		St		8°		St		7°		St-Cu	
26	10				10	S	St		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
27	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
28	10		Nb	*	10		Nb	*	10		Nb	*	10		Nb	*°	10		Nb	*°	6	SW	CI-ST CU-NB	
29	10		Cu-Nb		10		St		10		St		10		St		10	W	St		10		Cu-Nb	
30	7		Ci-St		7				7°		St		2°		St		1°		St		1°		St	
31	8		St		8		St		4	NW	St		3°		Ci-St		2	N	St		7°	N	St	*°
Mean	7·3				7·1				7·4				7·6				7·4				7·6			

1901. May.

Gaasefjord. $\varphi = 76° 49' N.$ $\lambda = 88° 40' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	9°		St		7°		Ci-St		9		Ci-St		7		Ci-St		1°		St		0			
2	0				0				0				1°		St		1		St		2		St	
3	9		Nb		8		St-Cu		8		Cu		7		St-Cu		8		St-Cu		6		Ci-Cu	
4	1°		Ci-St		2		Ci-St		3°		Ci-St		1°		Ci-St		1°		Ci-St		0			
5	3°		Ci-St		3°	NW	Ci-St		3°	NW	Ci-St		8	N	Cu-Nb		9	N	St		10	N	St	
6	0				0				0				2°		Ci		5	NW	Ci-Cu St		5		Cu-Nb	*°
7	10		Nb	*°	10		Nb	*°	10		Nb	*°	8	NW	Nb		9		Nb		10		Nb	*°
8	9	NW	Cu-Nb		10		Nb	*°	10		Nb	*°	10		Cu-Nb	*°	10		Cu-Nb	*°	10		Cu-Nb	*°
9	10°	SSW	Cu-Nb		4	SW	Cu-Nb		4		Cu-Nb		3°		Ci-St		2		St		7°		St	
10	9	S	Cu-Nb		3	S	Ci-St		7°	S	Cu-Nb		8°	S	Cu-Nb		10°		Ci		10		Ci	
11	10		Nb	*°	10°		Nb		9		Cu-Nb		8		Cu-Nb		0		Nb		5		Cu-Nb	*°
12	7°		Cu-Nb		10		Cu-Nb	*°	10		Cu-Nb	*°	10		Cu-Nb	*°	10		Cu-Nb		10		Cu-Nb	
13	3	S	Cu-Nb		7	S	Cu-Nb		3	S	Cu-Nb		5		St		10		St-Cu		10		St-Cu	
14	10		Nb		10		Nb		10		Cu-Nb		10		Nb		10		Nb	*°	10		Nb	*°
15	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10°	SW	Cu		1		St	*°
16	3		Cu-Nb		2	NW	Cu-Nb		2	N	Cu-Nb		1		Cu-Nb		0				2°		St	
17	0				0				0				0				0				1		St	
18	10		St		10		St		10		St		10		St		10		St		10		St	
19	10°		Nb	*°	10		Nb	*°	10		Nb		10		Nb		10		Nb		9		St	
20	10		Nb	*°	10^2		Nb	*°	10^2		Nb	*°	10		Nb	*°	10		Nb	*°	7°		St	
21	10°		Nb		10°		St		10°		Nb	*°	10		Nb	*°	10		Nb		10		Nb	
22	9	S	Cu-Nb		10	S	Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10	W	Cu-Nb	
23	10		Cu-Nb		10		Cu-Nb		10		Nb		10		Nb		10		Nb		10		Cu-Nb	
24	2		Ci-St		3	N	Ci-St		1		Ci-St		1		Cu-Nb		2		Ci-St		1		St	
25	10°		St		10°		St		10°		St		10°		St		10		St		10		St	
26	10		Nb	*°	10		Nb	*°	10		Cu-Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
27	10		Nb	*°	10°		Nb		10		Nb	*°	10		Nb	*	10		Nb	*	10		Nb	*
28	10°		Nb	*°	10		Nb	*°	9	N	Nb		10		Nb	*°	10		Nb	*°	10		Nb	
29	10		Nb		9		Cu-Nb		7°	W	St		5°	W	Ci-St		8		Ci-St		7		Ci-St	
30	1°		St		1°		St		0				3		Ci-St		2°		St		3		St	
31	9		Cu-Nb	*°	10°		Nb	*°	10		Nb	*°	10		Nb		10	N	St		10	N	St	
Mean	7.2				7.1				6.9				7.0				7.3				7.0			

1901. June.

Gaasefjord. $\varphi = 76^\circ 49' $ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	10	N	St		10		Nb	∞°	10		Nb	∞°
2	10		Nb	*°	10		Nb	*°	10°		Nb	*°
3	5		Cu		1		Cu-Nb		3		Cu-Nb	
4	8		Cu-Nb		10°	N	Cu		3	N	Cu	
5	1	NE	St		1		St		1		Cu	
6	10		Nb		10		Nb	*°	10		Nb	*°
7	4	N	St-Cu		10		St-Cu		7		Cu-Nb	
8	5	E N	ci st-cu		5	NE	Ci-St		4	NE	St	
9	6	NE	Ci-St		6				5		Ci-St	
10	10		Nb	∞°	10		St		10		St	
11	10		Cu-Nb		10		St		10		St	
12	10		Nb		10		Nb	*°	10		Nb	*°
13	8		St	*°	5		St-Cu	*°	5		St-Cu	*°
14	10	SW	Cu-Nb		10	SW	Cu-Nb		10		Nb	
15	10		Nb	*°	10		Nb	*°	10			
16	10		St	*°	10		Nb	*°	10		Nb	*°
17	10		Nb	*°	10		Nb	*°	10		Nb	*°
18	10	S	St	*°	10		St		10		St	
19	7		St		9		St		7	NE	St	
20	10				10		St		10		St	
21	10		Cu-Nb		10		St		10		St	*°
22	7	E	St-Cu		8	SW	St-Cu		9	SW	St-Cu	
23	9°		St		10		St		10		St	
24	4		St		0-1		St		1°		Ci-St	
25	1		St-Cu		10	SE	St		10		St	
26	10		St		10		St		10		Nb	
27	8	SW			7	SW	Ci-St		10		St	●°
28	10		Nb		10				10		St	
29	1°		St		1		St		5		St	
30	10		St		10				10		Nb	
Mean	7.8				8.1				8.0			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10		Nb	∞°	10		Nb		10		Nb	
2	10		Nb	*°	10		Nb	*°	8°		ci st	
3	1		Cu		1°		St		1°		St	
4	2	N	Cu		8		Cu-Nb		10		Cu-Nb	
5	0				1		Cu-Nb		3	NE	Cu-Nb	
6	10		Nb	*	10		Nb	*	10		Nb	*°
7	2°	N	St		2	N	St-Cu		4	N	Cu-Nb	
8	7°	NE	St		8°	NE	St		8°		St	
9	2	N	Ci-St		4	NE N	ci-st st		3	N	Fr-St	
10	10		Nb		10		Nb		10		St	
11	10		St		10		St		10		St	*°
12	10		Nb		10°		Nb		1		Nb	
13	5		St-Cu	*°	9		St-Cu		10		Nb	
14	10		Nb		10			●*°	10			●*°
15	10			*°	10		Nb		7	SW	Cu-Nb	
16	10			●*°	10°		Nb	*°	10		Nb	*°
17	10			*°	9		St		6	S	St	
18	10	S	St		8	S	St-Cu		9		St	
19	4		Ci-St		10		St		10		Nb	
20	10²		St		10			*°	10			●°
21	10		St		10	N	St-Cu		10			∞°
22	4		Ci-St		3	N	St		6	NNE	St	
23	10²		Fr-St		9		St		5°	NNE	St	
24	2		Ci-St		0-1°		Ci-St		1		Ci-St	
25	10	SE	St		10		St		10		St	
26	8		St		8	NW S	ci st		9	NW S	ci st	
27	10°		St		10°		St		6	S	Ci-St	
28	10		St		10		St		1		St	
29	6		St-Cu		10		St		10		Nb	●°
30	10		St		10	N	**Fr-St**		10		**Fr-St**	
Mean	7.4				8.0				7.3			

1901. June.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud Am.	2h Cloud Dir.	2h Cloud Fm.	2h Pr.	4h Cloud Am.	4h Cloud Dir.	4h Cloud Fm.	4h Pr.
1	10		Nb		10		Nb	
2	10°		Nb	✱°	10		Nb	✱°
3	4		St-Cu		5		St-Cu	
4	10		Cu-Nb		10		Nb	✱°
5	6	NE	Cu-Nb		8	N	Cu-Nb	
6	10	NW	Cu-Nb		10		Nb	✱°
7	6	N	Cu-Nb		8	N	Cu-Nb	
8	9°	N	St		8	N	St	
9	2	N	Fr-St		2	N	Fr-St	
10	10		St		10		St	
11	10			≡✱°°	10		Nb	≡✱°°
12	9		St-Cu		10		Nb	✱°
13	10		Nb		10		Nb	
14	10			●✱°	10			●✱°
15	7	SW	St-Cu		10		St-Cu	
16	10		Nb	●✱°	9		St-Cu	
17	7	S	St-Cu		10	S	St	
18	10		St		10°		Nb	●°
19	10		Cu-Nb	✱°	10°		Fr-St	
20	10			●°	10			✱°
21	10			✱°	9		Fr-St	
22	2	N	St		8	N	St-Cu Fr-St	
23	1	NE	Fr-Cu		1-2		St	
24	2°	S	Ci-St		2°	N S	Ci St	
25	10		St		10		St	
26	10	S	Ci-St		10		St	
27	3	S	Ci-St		8	SW	St	
28	0				1		St	
29	9	S	Fr-Nb		10		Nb	●≡°°
30	8	N	Fr-St		9	N	Fr-St	
Mean	7.5				8.3			

Day	6h Cloud Am.	6h Cloud Dir.	6h Cloud Fm.	6h Pr.	8h Cloud Am.	8h Cloud Dir.	8h Cloud Fm.	8h Pr.
1	10	N	Nb		10²		Nb	✱°
2	9	E	Cu-Nb		9	E	Cu-Nb	
3	4		Cu-Nb		7	N	Cu-Nb	
4	9		Cu-Nb		9	NE	Cu-Nb	
5	9	N	Nb		10		Nb	
6	10		Nb		7	N	Nb	✱✱°
7	3	N	Cu-Nb		8	N	Cu-Nb	
8	4	NE N	Ci-St St		8°	NE N	Ci-St St	
9	2		Fr-St		1		Fr-St	
10	10		St		10		Nb	✱°
11	10		Nb		10		Nb	
12	10		Nb		8		St	
13	10°		Nb		10		Nb	
14	10		Nb	●✱°	10		Nb	●✱°
15	10		St-Cu		10		St	
16	10		Fr-St		10		Fr-St	
17	7	S	St-Cu		10	S	St	
18	10		St		10		St	≡°
19	9		Fr-St		9		Fr-St	
20	10		Cu-Nb	✱°	9	N	Ci-Cu Fr-St	
21	9		St-Cu		8	E	St-Cu	
22	10		St		10		Nb	●✱°
23	0				0-1		St	
24	0.5	S	St		2°	S	St	
25	10		St		10		St	
26	10	W	St		9	W	St	
27	9	SW	St		6	SW	St-Cu	
28	0				1°		St	
29	10		Nb	●≡°°	10		Nb	●≡°°
30	9	N	Fr-St		7	N	Fr-St	
Mean	7.8				8.0			

Day	10h Cloud Am.	10h Cloud Dir.	10h Cloud Fm.	10h Pr.	Midt. Cloud Am.	Midt. Cloud Dir.	Midt. Cloud Fm.	Midt. Pr.
1	10		Nb	✱°	10		Nb	✱°
2	9		Cu-Nb		5		Cu	
3	9		Cu-Nb		10		Cu-Nb	
4	4	NE	St		2	NE	St	
5	9	N	Nb		10		Nb	
6	4	N	Cu		1	N	Cu	
7	6	E N	Ci-Cu Cu-Nb		6	E N	Ci-Cu St	
8	6	N	Ci-St		8	N	Ci-St	
9	2		Fr-St		10		Nb	
10	10		Cu-Nb	✱°	10		Nb	✱°
11	10		Nb		10		Nb	
12	7		St		8		St	✱°
13	10		Nb		10		St	
14	10		Nb	●°	10		Nb	✱°
15	9		Ci-St		10		St	
16	10		Nb		10		Nb	✱°
17	10	S	St		10	S	St-Cu	
18	10		St		9		St	
19	8	NW	Ci-St Fr-St		9			
20	10		Cu-Nb		10		Cu-Nb	
21	5	E	St-Cu		9	E	St-Cu	
22	10		Nb	●✱°	10		Nb	●✱°
23	0-1		St		3°	NNE	St	
24	3°	SE	Ci-St		2°	SE	Ci-St	
25	10		St		10		St	
26	10	W	St		10	W		
27	8	SW	St		9	SW	St	
28	0				0			
29	10		Nb	●≡°°	10	St		
30	9	N	Fr-St		7	N	A-St Fr-St	
Mean	7.6				7.9			

1901. July.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	5	N	St		3°	N	Ci-St		4°	N	Ci-St		1		St		0				0			
2	1		St		2		St		3		St		9		St		9	NW	St		10	NW	St	
3	10		Nb	●°≡°	10		Nb		10^2		Nb		10		Nb		10		Nb		10		Nb	
4	10		Nb	∞°	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
5	10		Nb	∞°	10		Nb		10		Nb		10		Nb		5	NW	St		6	N	St-Cu	
6	10		Nb	●°	10		Nb	●°	10		Nb		10		Nb		10	NW	Nb		10	NW	Nb	
7	5		St		8	NW	St		10	NW	St		10		Nb		10	NW	St		10	NW	St	
8	10		St		10		Nb		10		Nb		10		Nb		10		Nb		9	N	St	
9	8	N	St-Cu		5		St-Cu		3		St-Cu		1	N	St		3	N	St-Cu		2	N	St-Cu	
10	0				0		Nb		0				0				0				0			
11	5		Ci-St		6		Ci-St		4		Ci-St		8		Ci-St		9°	NW	St		10°	NW	St	
12	6°		Ci-St		2°	N	Ci-St		6				10°		Ci-St		5°	S	Ci-St		8°	N	Ci-St St	
13	10		Cu-Nb		10		Cu-Nb		9		Ci-St		2°	N	Ci-St		10°		Ci-St		10°		Ci-St	
14	8		St		10		Nb		8		Nb	●	9		St-Cu		8		St-Cu		3	W	St	
15	1		St		2		Ci		4		St-Cu		9	W	St-Cu		10	W	St		10	SW	St	
16	10				10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Cu-Nb	
17	8	NW	Fr-St	∞°	10		Nb	●°	10^2		Nb	●°	10			●°∞°	10^2		Nb		9	NW	St	
18	7	W	St-Cu		10		Nb	≡°	10		Nb	●*°	10^2		Nb	●*	10^2		Nb	●*°	10	N	Cu-Nb	
19	10		Cu-Nb		10				10				10		Nb		10		Nb		10		Nb	*°
20	10		Cu-Nb	*°	10	N	Cu-Nb		9	N	Cu-Nb		10		Nb		10		Cu-Nb		8	NE	Cu-Nb	
21	7		Fr-Nb		6		Fr-Nb		6		Fr-Nb		10		Nb		3		Fr-St		7	NE	Fr-St	
22	8				6				5°		Cu		3	W	St-Cu		3	W	Ci-St or Fr-St		7	N	Ci or St-Cu	
23	10		Cu-Nb		10		Nb		10		Nb	●°	10		Nb	●°	10		Nb	∞	10		Nb	●°
24	10		Nb	●*°	10		Nb	●°	9		St		10		Nb	●*°	9		Cu-Nb	*°	10		Cu-Nb	*°
25	8	N	St-Cu		10		Cu-Nb		10		Cu-Nb		10		Nb		10	N	Cu-Nb		10	N	Nb	
26	10				10		Nb	●°	10		Nb	●°	10		Fr-Nb		10		Fr-Nb	*°	10°		Fr-Nb	
27	10		Fr-Nb		10		Nb	●°≡	10		Nb	●°≡°	10		Nb	≡°	10		Nb		10		Nb	
28	10		Nb	●°	10		Nb	●	10		Fr-Nb	●°	10		Fr-Nb	●°	10		Fr-Nb	●°	10		Fr-Nb	●°
29	9		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb	●°	10		Fr-Nb	●°	10		Fr-Nb	●°
30	10				10		St-Cu		10		St-Cu		10		St-Cu		10		St-Cu		10		Fr-Cu	
31	10			≡	10		Nb	≡°	10		Nb	≡°	10		Nb		10	NW	Cu-Nb		10	NW	Cu-Nb	
Mean	7.9				8.1				8.1				8.5				8.2				8.3			

1901. July.

Gaasefjord. $\varphi = 76° 49'$ N. $\lambda = 88° 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				1		St		1		St		4	N	St		3		Fr-St	
2	10	NW	St		10°	N	St		10		St		10°	W	St	●°	10		St		10		St	
3	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	∞	10		Nb	∞°
4	10		Nb	● *°	10		Nb	● *°	10		Nb	● *°	10		Nb		10		Nb	●°	10		Nb	∞°
5	9	NW	St		10	NW	Nb	●°	10	NW	St		10	NW	Nb	●°	10	NW	St		10		Nb	●°
6	10		Nb		9	NW	St		10	NW	St		9	NW	St		10	NW			10	NW		
7	10		St		10		St		10		St		10		Nb	●°	10		St	∞°	8	N	St-Cu	
8	7	NW	St-Cu		6	NW	St-Cu		4	NW	St-Cu		8	N	St-Cu		5		St-Cu		4		St-Cu	
9	2		St-Cu		0-1		St-Cu		0				0				0				0			
10	0				0				0				0				1	NW	Ci-St		5	NW	Ci-St	
11	9		Ci-St		3°		Ci-St		0				0				6°		Ci-St		1		Ci	
12	9		St		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb	
13	8°	NW	Ci-St		10°	NW	Ci-St		10		St-Cu		7° 3	WNW S	Ci-St St		2		Ci-St		8		St	
14	0-1		St		2	N	Fr-St		6	N	Fr-St		3		St-Cu Fr-St		2		St-Cu		2	W	St-Cu	
15	10		Nb		10	W	Nb		10	W	Nb		10	W	St		9	W	St		9	W		
16	10		Cu-Nb		9		Cu-Nb		10		Cu-Nb		8	NW	Cu-Nb		9	NW	Cu-Nb		8	NW	Fr-St	
17	6	SW	St		9	NW	St		9	NW	St		10	NW	Cu-Nb		9	NW	Cu-Nb		10	NW	Cu-Nb	
18	10		Nb		10		Nb		10		Cu-Nb		9		Cu-Nb		10		Cu-Nb		10		Cu-Nb	
19	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Cu-Nb	*°	10		Nb	*°
20	4	N	St		7	NW	St-Cu		8	NW	Cu-Nb		2		Cu-Nb		7		St-Cu		8		Fr-St	
21	9	N	Cu-Nb	●°	3	N	Fr-St		1		St		0-1	N	St		6				4			
22	6	SW	St-Cu		7	SW	St-Cu		10	SW	Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb	
23	10		Nb	●°	10		Nb	●°	10		Nb	●	10		Nb	●	10		Nb	●	10		Fr-Nb	●
24	10		Nb	●°	10		Nb	● *°	10		Fr-Nb	●°	7°		St-Cu		10		Fr-Nb		9		Fr-Nb	
25	10		Nb		10°	NNE	St		10		Nb		10		Nb	∞°	10		Fr-Nb		10		Fr-Nb	
26	10		Fr-Nb	●°	10°		Fr-Nb		10°		Fr-Nb	●°	10		Nb	≡°	10		Nb	≡°	10		Nb	≡°
27	10°		Fr-St		10		Fr-Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb	●°
28	10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb	
29	10		Fr-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10				10			
30	10		St-Cu		10		Fr-St		10		Fr-St		10		Fr-St		10		Fr-Nb		10		Fr-Nb	∞°
31	9	NW	Cu-Nb		10		Cu-Nb		10		Cu-Nb		10		Cu-Nb		10°		St-Cu		10°		St-Cu	
Mean	7.7				7.9				8.0				7.5				8.1				8.0			

1901. August.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10°		St-Cu		10°		St-Cu		10		St		9		St-Cu		9°		St-Cu		10°		St-Cu	
2	10				10		Cu-Nb	●°	10		St		10		St		10		St		10		Nb	
3	10		Nb	∞°	10		Nb		10		Cu-Nb		9		St-Cu		10		St-Cu		10	SW	St-Cu	
4	10		St-Cu		10		St-Cu		10		St-Cu		10		Nb	●°≡°	10		Nb	≡●	10		Nb	●°
5	10		St		10		Nb		10		Nb	●°	10		Nb	●*°	10		Nb	●°	10		Fr-Nb	
6	10		Nb		10		Nb		10			*°	10		Nb	*°	10		Fr-Nb	*°	10		Fr-Nb	
7	10		Cu-Nb		10		Cu-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb	≡°	9		Fr-Nb	●°
8	3		Ci-St		0				0				0				1		Ci		5°		Ci-St	
9	6		St		8				9°		St		8		St		7	N	St		3		St	
10	0				0				1		Ci-St		8	NE	St		9		St		10		St	
11	7		Nb		10		Cu-Nb		10		Cu-Nb		10		St		10		St		10		St-Cu	
12	10		Nb	*°	10		Nb	*	10		Nb	*°	10			●*°	10			*	10		Nb	*
13*	9		St		10		Cu-Nb	*°	10		St-Cu		9		St	∞°	3	NW	Ci-St		3	NW	St-Cu	
14	0				0				0				0				0				0			
15	2°		Ci-St		3				2				1		Ci-St		4°		Ci-St		3		Ci-St	
16	10°		St-Cu		10		St-Cu		10		St-Cu		10		Nb	●°	10		Nb	●°	10		Nb	
17	10		Nb	●°	10		Nb	●°	10	SE	Nb	●°	10	SE	Nb	●°	10		Nb	●°	8		Nb	
18	10	SSE	Cu-Nb		9	S	St-Cu		10	S	Cu-Nb		10		St-Cu		10	S	St-Cu		10	SE	St	
19	10		Nb		10²		Nb		10²		Nb		10²		Nb		10		Nb		10	SSW	Nb	
20	10		St		10	N	St		10		St		10		Nb		10		St		9°		St-Cu	
21	10		Fr-Nb	*°	9		St-Cu		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
22	10				9		Ci-St		9		St		9		Fr-St		10		Fr-St		10		St	
23	10		St		10		Nb	*°	10		Nb		10		Nb		10		St		10		St	
24	3°		St		5°		St		5		Ci-St		4°		St		5°		Ci-St St		9°		St	
25	5		St		4		St		4°		St		4	SE	St		6	S	Ci-St St		10		St	
26	9	SE	Cu		9	SE	St-Cu		8				6	SE	St-Cu		6	SE	St-Cu		9	SE	St-Cu	
27	10		Nb	●°	10				10		Nb		7		St		3		St		8		St	
28	10		St		10		St		10		St-Cu		10	ENE	St-Cu		4	E	Ci-St St		4	E NW	Ci-St Fr-St	
29	8	ESE	St-Cu		7	ESE			7 2	NE SE	Ci-St Fr-St		2		Ci-St Fr-St		3		Ci-St Fr-St		3 1	N	Ci-St Fr-St	
30	9		St		8°		Ci-Cu		7		Ci-Cu		3	NE	St-Cu		7		Fr-St		9		Fr-St	
31	10	N	Nb		3	NE	Ci-St	≡°	10	NNW	Fr-St		10		Fr-St		9	NE	St-Cu		10	N	St-Cu	≡°
Mean	8.1				7.9				8.1				7.7				7.6				8.1			

* From the 13th August to the 5th September under way in the Gaasefjord, working southwards.

1901. August.

Gaasefjord. $\varphi = 76^\circ 49'$ N. $\lambda = 88^\circ 40'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10°		St-Cu		9	SW	St-Cu		10	SW	St-Cu		10		St-Cu		10				10			
2	10		Cu-Nb	●°	10		Nb	●°	10		Nb		10		Nb		10		St-Cu		10		Nb	∞°
3	9	SW	St-Cu		8°	SW	St-Cu		6°	SW	Ci-St		7°	SW	Ci-St		9	SW	St-Cu		10		Cu-Nb	●°
4	10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10			≡	10		St	
5	2		Fr-Nb		9		Fr-Nb		9		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		Nb	
6	9		Cu-Nb		10		Cu-Nb		8		Ci-St Cu-Nb		6		Ci-St St-Cu		8°		St-Cu		10		Cu-Nb	
7	8		St-Cu		6	N	Fr-St		6	N	Fr-St		4	NW N	Ci-St Cu		6°		Ci-St		6°		Ci-St St	
8	3		Ci-St Fr-St		10		St-Cu		10		Fr-St	∞°	10		Fr-St	∞°	10		Fr-St	∞°	8			≡°
9	6	NE	St		9		St		4		St		1		St		1		St		1		Fr-St	
10	10		St		10		Nb	●*°	10		Nb	●°*°●°	10		Nb	●*°	10		Nb		10		Nb	
11	10		St-Cu		10		Cu-Nb		10		Cu-Nb	●*°	10		Fr-Nb	●*°	10°		Fr-Nb		10		Fr-Nb	
12	10		Nb	△●*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10°	NNE	Fr-Nb	*°	10			∞°
13*	4	NW	Ci-St		1		St		4		Fr-St		3		St		2	N	Fr-St		1		St-Cu	
14	0				0				1°		Ci-St		1°		Ci-St		4°		Ci-St		1°		Ci-St	
15	3		Ci-St		7		Ci-St St		8		St		10		St		10°		St-Cu		10°		St-Cu	
16	9		St		7	SE	St		9		St		10		Nb		10		St		10		Nb	●°
17	4	SE	Cu		7	S	Nb	●°	8	S	Nb	●°	7	SE	Cu		7	SE	Cu-Nb		9	SE	Cu-Nb	
18	10	S	St		10		Nb		10		Nb		10	S	Cu-Nb		10	S	Fr-Nb		10		Nb	
19	10		Nb		10		St		10		St		10		St		10		St		10		St	
20	4	NNE	St-Cu		5°	N	St-Cu		4°	N	St-Cu		7	N	St-Cu		8	N	St-Cu		10	N	St-Cu	
21	10		Fr-Nb	*°	10		Fr-Nb		10		Fr-Nb		10		Fr-Nb	*°	10		Fr-Nb	*°	10		Nb	*°
22	10		St		10°		St-Cu		10		St		10		Fr-Nb	*°	10		Nb		10		St	
23	10		St		10		St		9		St-Cu		10	SSE	St-Cu		8		St		4		St	
24	10°	SE	St		9	SE	St		9		St		10°		St		10°		St		10°		St	
25	10		St	∞°	10		St-Cu		10		St-Cu		10°		St-Cu		10		St		9	SE	Cu	
26	10		Nb	*°	10		Cu-Nb	●°	10		Nb		10		Nb		10		St-Cu		10		Nb	
27	9		St		10		St		10		St		9°		St-Cu		9				10			
28	4	E NW	Ci-St Fr-St		6	NW	Fr-St		9	NW	Fr-St		9		Ci-St Fr-St		10°		Fr-St		8		St	
29	3		Ci-St Fr-St		7°		Ci-St St		7°		Ci-Cu St		7°	E	Ci-Cu St		3		Fr-St		4		St	
30	9		St		10	NNW	Fr-St		7			≡°	3		Fr-St	≡°	9°	N	St	≡°	10	N	Nb	
31	9	NE	Fr-St		9	NE	Fr-St		10	NE	Fr-St		10	NE	Fr-St		8	N		≡°	7			
Mean	7.8				8.4				8.3				8.2				8.6				8.3			

* From the 13th August to the 5th September under way in the Gaasefjord, working southwards.

1901. September.

Gaasefjord from the 6th. $\varphi = 76^{\circ} 40'$ N. $\lambda = 88^{\circ} 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	5	N	St	≡°	8	N	St		8		St-Cu		1		St		1°		St		1°	S	St	
2	4	SE	St		6	SE			8	SE	St-Cu		7	SE	Ci-St		7	SE	CI-ST ST		9	SE	St-Cu	
3	10	SE	St		10		Nb		10	SE	Nb	*°	10	SE	Nb	*°	10	SE	Nb	∞°	10		Nb	
4	10				9		Nb		10		Nb	*°	10		St		8°		St-Cu		10		St-Cu	
5	10		Nb		10		Nb		10	N			10	NW	Nb	∞°	3°		St		1		St	
6	2	N	Fr-St		10		Nb		10		Nb		10	N	Nb	∞°	4	N	CI-ST FR-ST		4	N	CI-ST FR-ST	
7	1		St		9			≡°	9	SE		≡°	10		Fr-St		10		Fr-St		10^2		Nb	*°
8	10^2		Nb	*°	10		Nb	*	10		Nb	*°	10		Nb		10		Nb		10		Nb	
9	10	NW	Fr-St		9		St-Cu		3°		St-Cu		0-1		St		2		Fr-St		2		Ci-St	
10	10		St		6	NW	St		1°		St		0				0				0			
11	0				1		Fr-St		1		Fr-St		2		Fr-St		2	N	CI-ST FR-ST		2°	N	CI-ST FR-ST	
12	6		St		4		St		0				0				0				0			
13	10°		St		10°		St		9°		St-Cu		9°		St		9		Ci-Cu		10		St-Cu	
14	7		St-Cu		8		St-Cu		9	N	St-Cu		10		Nb	*°	9		St-Cu		9		St-Cu	
15	5°		St		10		Nb	*°	9		Nb	*°	10		Nb	*°	10		Cu-Nb	*°	7		Cu-Nb	*°
16	10	N	Nb		10	N	Nb		10	N	Cu-Nb		9		St		10	N	Fr-St		9	N	Fr-St	
17	10		Fr-Nb	*°	9		St		7		Ci-St		1/3	N	CI-ST FR-NB		3	E	Ci-St		2/1	NE N	CI-ST FR-NB	
18	10		Nb		10		St		10		St		10		St-Cu		5		St-Cu		2		St	
19	5		St		9	NW	Fr-St		10	NW	Fr-St		10	NW	Fr-St		10	NW	Fr-St		10	NW	Fr-St	
20	10		Fr-St		10		Fr-St		10		Fr-St		10°	N	Fr-St		9°	N	Fr-St		9	N	Fr-St	
21	0				1		St		3		St		0				2		St		1		St	
22	0				0				0				2		Ci-St	≡°	1		Ci-St	≡°	2		St	≡°
23	4		St		4		St		8		Ci-St		10	N	Fr-St		2		Fr-St		2		Fr-St	
24	10		FriNb	∞°	10		Fr-Nb	∞°	10		Fr-Nb	*°	10		Nb	*°	5		St	∞°	10		Nb	*°
25	8				10			*°	10				10		Nb		9		Nb	*°	10°/2		CI-ST FR-ST	
26	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	
27	10		Nb		10		Nb		10		Nb		8	NW	Nb	≡°	10	N	Nb	≡°	10	N	Nb	∞°
28	2		St-Cu		4		St-Cu		5		St		6	N	Nb		10°	N	Ci-St		8	N	St-Cu	
29	7°		St	∞°	8		St	∞°	10		St		5	NE NW	CI-ST FR-NB		10		Nb		10°		Ci-St	∞°
30	4	N	St-Cu		10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
Mean	6.7				7.8				7.7				7.1				6.4				6.2			

1901. September.

Gaasefjord from the 6th. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h Cloud. Am.	Dir.	Fm.	Pr.	4h Cloud. Am.	Dir.	Fm.	Pr.	6h Cloud. Am.	Dir.	Fm.	Pr.	8h Cloud. Am.	Dir.	Fm.	Pr.	10h Cloud. Am.	Dir.	Fm.	Pr.	Midt. Cloud. Am.	Dir.	Fm.	Pr.
1	2°		St		2°		St		2°		St		3°	NW SE	Ci St		9° 4	NW SE	Ci St		10	NW SE	Ci-St St	
2	9	SE	St-Cu	*°	10	SE	Nb	*°	10		Nb	*°	10		Nb		10				10	SE	St-Cu	
3	10		Nb		10°		Nb	*°	10°		Nb		10		Cu-Nb	*°	9		Cu-Nb	*°	10		St	*°
4	10°		Fr-St		10		Fr-St		9		Fr-St		10		Fr-St		10		Fr-St		10	N	Nb	≡°
5	3				4	N	St		5	NE N	Ci-St St		10	N	Fr-St		10	N	Fr-St		2	N	Fr-St	
6	4	N	Ci-St Fr-St		9	N	A-Cu St		8°	S N	A-Cu St		3		Ci-St Fr-St		2°		St		2°		St	
7	10²		Nb		10²		Nb		10²		Nb		10²		Nb		10²		Nb	≡°	10²		Nb	≡°
8	10		St		10	W	St		10	NW	St		10		Nb		10		Fr-St		5	NW	Fr-St	
9	5		Ci-Cu		2		Ci-St		7	N	Ci-Cu St		8°		St		9		St		10		St	
10	0				0				0				1		Fr-St		0				1		St	
11	2	N	Ci-St Fr-St		1	N	Ci-St Fr-St		3	N	Ci-St Fr-St		8	N	Ci-St Fr-St		9		St		10		St	
12	0				2		Ci-St		7	ENE	St		9	E	St		8°		St		9°		St	
13	10		St-Cu		8°		St		7	N	Ci-St Fr-St		8		St-Cu Fr-St		7		St-Cu Fr-St		6		St-Cu Fr-St	
14	9		St-Cu		10		Nb	*	9		Nb	*°	9		Nb		9		St		8		St	
15	7	N	Cu-Nb	*°	4	N	St-Cu		3		Cu-Nb	*°	8		Cu-Nb	*°	10		Cu-Nb		8°		Cu-Nb	
16	7	N	Fr-St		4	N	Ci-St Fr-St	*°	6	NW	Fr-Nb	*°	4	NW	Fr-Nb	*	5	NW	Fr-Nb	*°	10		Fr-Nb	*°
17	7	E	Ci-Cu		9	NE	St-Cu		10	NE	St-Cu		10		St		10		St		10		Nb	
18	2 1	N	Ci-St Fr-St		2 1		Ci-St Fr-Nb		4		Ci-St St		3		Fr-St		1		St		4		St	
19	10		Fr-St		10		Fr-St		10		Fr-St		10		Fr-St		10		Fr-St		9		Fr-St	
20	9	N	Fr-St	*°	8	N	Fr-St	*°	5	N	Fr-St	*°	10	N	Fr-St		4	N	Fr-Nb	*°	1		St	
21	2		St		3	N	Ci St Fr-St		2		St		1		St		1		St		1		St	
22	1°		St		1°		Ci-St	∞°	2		St	∞°	1		St		4		St		6		St	
23	2	N	Fr-Nb		2			∞°	2	NE	Fr-Nb	∞°	4		Fr-Nb	∞°	10°		Nb	∞°	10			∞°
24	10		Nb	*°	5		St	∞°	9		Nb	*°	10		Nb		10				10			
25	10°		Nb	*°	10° 2		Ci-St Fr-St		10		Nb	*°	10²		Nb	*°	10		Nb	*°	10		Nb	*°
26	10		Nb		10		Nb		10		Nb	*°	10		Nb		10		Nb		10		Nb	
27	2	N	St-Cu	∞°	0			∞°	3	N	St	≡°	4		St-Cu		7		St		4		St-Cu	
28	8	N	Ci-St St-Cu		7	N	St-Cu		9	N	St		5	N	St		5	N	St-Cu		10		St	
29	10° 5	NW	Ci-St Fr-St		10		St		10²		Nb	*°	10²		Nb	*°	10		Nb	*°	10		Nb	*°
30	10°		Nb		10°.		Nb	*°	10°		St-Cu		10°		Nb	*°	10		Nb		10		Nb	
Mean	6.2				5.9				6.7				7.3				7.5				7.5			

1901. October.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	
2	6		St-Cu		0				1		St-Cu		2		Ci-St		3		Ci-St		1		Ci-St	
3	7°		St		9°		St		9°		St		9°		St		10		St		10		St	
4	8		St		10°		Ci-Cu		10		Ci-Cu		10		Nb	∗°	7		Fr-Nb		9		Fr-Nb	
5	10		St		10		St		10		Nb	∗°	10			≡° ∞°	10			≡° ∞°	10		Nb	≡° ∗° ∞°
6	10		Nb	∗°	5		St		9		St		10		Nb		10		Nb		10		Nb	
7	2°		St		8		St		7		St		4°		St		7°	E	Ci-St St		5°	E	Ci-St St	
8	0				0			∞°	3		St		3		St		5		St		7		Nb	
9	5		St		10		Nb		7		St		10		St		4°		St		4°		St	
10	5		St		9		St		6°		Ci-St		3°	NW	Ci-St		6		St		5		St	
11	10				10		St-Cu		2		St-Cu		1	'	St-Cu		1		St		2		St-Cu	
12	10		St		10				10		Nb		10	N	Nb		10		Nb		10		Nb	
13	10		Nb		10		Nb		10		Nb		10		Fr-Nb		10		Fr-Nb		10		Nb	∗°
14	10		Nb	∗°	10		Nb	∗°	10		Nb		10°		Nb	∗°	10		Nb		10°		Nb	∗°
15	10		Nb	∗°	10		Nb	∗°	8°		Ci-Cu		9		Nb	∗°	8		Nb		10		Nb	
16	0				0				7		St		8		St-Cu		9		St-Cu		9°		St-Cu	∞°
17	10		Nb	∗°	10		Nb		10		Nb		10		Nb	∗°	10		Nb	∗°	10		Nb	∗°
18	4				6				8		St		10°		Nb		10°		Nb		10°		Nb	∞°
19	0				0				2		St		2		St		3		St		6		St	
20	0			∞°	0				0				0				0				0			
21	0				0				0				0				0				0			
22	0				0				0				0				0				0			
23	0				0				0				0-1	N	St		1	N	St		1	N	St	
24	0				0				2°	N	St		6	N	St		9	N	St		10°	N	St-Cu	
25	10°		St		10		St		10		Nb		10		Nb		10°		St		3		St	
26	10		St		10		St		10				10		St		10		St		9		St	
27	8		St-Cu		5				9				10		St-Cu		4		St-Cu		4		St-Cu	
28	10				10		St		10		St		10		Nb		10		Nb		10		Nb	∞°
29	3		St		4		St		3		St		10			∞°	10			∞°	10°			∞°
30	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	10		Nb	∗°	9		Nb	
31	8	N	Nb		9	N	Ci-St		8	N	Ci-St		0				2		St		3	W	St	
Mean	6.0				6.3				6.5				6.7				6.7				6.7			

1901. October.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10		Nb		10		St		10°		St-Cu		10°		St-Cu		10		St		10°		St-Cu	
2	4		Ci-St		5		Ci-St		3		Ci-St		2		Ci-St		3		Ci-St		3°		St	
3	10		Nb	*°	9		Fr-Nb	*°	9	N	St-Cu		5		St		10		St		8		St	
4	10°		Fr-Nb		10°		Fr-Nb		10		Fr-Nb		6		St	∞°	3		St		10		St	
5	2 5	S	ST NB	*°	10		Nb	*° ∞°	10		Nb	*° ∞°	10		Nb	*°	5		Nb		4		Nb	
6	10		Nb		9°		St		5	S	St-Cu		3		St		0				0			
7	5°	E	CI-ST ST		4°	E	Nb		7°		Ci-Cu		2		St		2		St		0			
8	9°	N	Fr-Nb		10		St		10		Nb		10		Nb		5		St		10		St	
9	6		St-Cu		3°		St-Cu		3°		St		3		St		10		St		6		St	
10	5		St		4		Fr-St		4		St-Cu		2		St-Cu		10				10			
11	7	N	Fr-St		10	N	CI-ST ST		10	N	Fr-St		10				10		St		9		St	
12	10		Nb		10		Nb		10		Nb	*° ∞°	10		Nb	*°	10		Nb		10		Nb	*°
13	10		Nb	*°	10	N	Fr-Nb		10	N	Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
14	10		Nb		10²		Nb	*°	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*°
15	10		Nb		10		Nb		9		Nb		8		Nb		4		St		3		St	
16	10		Nb	∞°	10		Nb	∞°	10		Nb	∞°	10		Nb	*°	10		Nb	*°	10		Nb	
17	10		Nb	*°	10		Nb		10		Nb		10		Nb	*°	10		Nb		5			
18	10°		Nb	∞°	10°		Nb	∞°	4		St-Cu		0				0				0			
19	10		Nb		10		Nb		8		Nb		0				0				0			
20	0				0				0				0				0				0			
21	0				0				0				0				0				0			
22	0				0				0				0				0				0			
23	1	N	St		0				1	N	St		2	N	St		1	N	St		1		St	
24	10°	NE	St		4	NE	St-Cu		2		St		5	N	Ci-St		3		St		10°		St	
25	4°		St		3		St-Cu		4		St-Cu		10		St-Cu		10		St		10		St	
26	10		St		0				1		St		2		St		7		Ci-St		9		St-Cu	
27	10		St		10		St		10		Nb		10				10		Nb		10		Nb	*°
28	9				8				7				6				5				4			
29	10°		St		10		St	∞°	10		St	∞°	10		Nb	*°	10		Nb	*	10		Nb	*°
30	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		9	N	Nb	
31	4		St		2		St		1		St		1		St		0				0			
Mean	7.4				6.8				6.4				5.7				5.9				5.8			

1901. November.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0				3		St		3		St		0				0				1		St	
2	0				0				6		Fr-St		9		Fr-St		10		Fr-St		10		Fr-St	
3	10				10		St	*°	10		St	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
4	3				0				0				0				1°		St		1			
5	0				0				0				1		St		8		Fr-St		3		Fr-St	
6	2		St		0				10°				10		Nb	*°	10		Nb	*°	10		Nb	
7	0				0				0				0				10		St		10		St	
8	0				0				0				0				0				0			
9	0				0				1				0				0				0			
10	2			∞°	3		St	∞°	1		St		4		St		3		St		2		St	
11	0				3		St		3		St		3		St		10		Cu-Nb		10		Nb	
12	2		St		2		St		0				10°		St		10°		St		10		St	
13	0				0				2			*°	4	S	St		6	S	St-Cu		2		St	
14	0				4				5				10		Nb	*°	3°		St		9		St	
15	10				10		St		10		St	*°	10		Nb	*°	9		St		8°		St	
16	9			∞°	8			∞°	0				0				2		St		1		St	
17	8				7				8				10		St		10		St		10		St	
18	10^2		Nb	*°	10			*°	10			*°	10			*° ∞°	10			*°	10			*°
19	10				0				0				3		St		2°		St		0-1°		St	
20	0				10				10				10				8		Fr-St		9		Fr-St	
21	0				0				0				0				0				2		St	
22	2°		St		0				0				0				0				0-1		St	
23	0				0				0				0				0				0			
24	2°		St		2°		Ci-St		3°		Ci-St		3		St		3°		St		3°		St	
25	6		St-Cu		3		St-Cu		6		St-Cu		0				1		St		1		St	
26	2		St		3		St		3		St		3°		Ci-St		1		St		1		St	
27	6	SW			5°		Ci	*°	4°		Ci		10°		Ci-St		2		St		2		St	
28	0				0				0-1		St		6		St		2		St		0-1		St	
29	0				2				3				3				2				2			
30	0				0				0				0				0				0			
Mean	2.8				2.8				3.3				4.3				4.4				4.3			

1901. November.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	2	N	Fr-St		3	N	Fr-St		0				0				0				0			
2	10		Fr-St		10		Fr-St		10				10			⊹	10			⊹	10			⊹
3	10		Nb	✱°	10^0		Nb	✱°	0				9				10				10		Nb	✱°
4	1^0		St		0				0				0				0				0			
5	1		Fr-St		0-1		Fr-St		0				0				0				0			
6	10		Nb		10		Nb		10		Nb	✱°	10		Nb	✱°	0				0			
7	10^2		St		10^2		St		0				0				0				0			
8	0				1		St		0				0				0				0			
9	0				0				0				0				0				1			∞°
10	1		St		0				1		St		1			∞°	0			∞°	0			
11	10		Nb		10		Nb		10		Nb	✱°	8		Nb	✱°	8		Nb		2		St	
12	10		St		10		Nb	✱°	7			⊹	3			⊹	0				10			
13	1		St		2		St		7				9				5				7			
14	2		St		2		St		0				5				4				3			
15	9		St		7		St		2		St		0				0				0			
16	3		St		3		St		3		St		4		St		5				7			
17	10		St		10		St		10		St		0				10		Nb		10^2		Nb	✱°
18	10		Nb		10				10				10				10				10			
19	1^0		Fr-St		0				0				0				0				0			
20	6		Fr-St		4		CI-ST FR-ST		4		Fr-St		3		Fr-St		7		Fr-St		8^0		St	
21	4		St		3		St		4		St		4^0		St		3			∞°	3			∞°
22	0				0				0				0				0				0			
23	1		St		0-1		St		3		St		1		St		2	SW	St-Cu		2	SW	St-Cu	
24	3^0		St		3^0		St		5^0		Ci-St		5^0		Ci-St		6^0		Ci-St	∞°	5		Ci-St	
25	1		St		1		St		2		St		2		St		1		St		1		St	
26	2		St		2			∞°	3			∞°	4			✱°	5			∞°	6			✱°
27	10^0_2		CI-ST ST		4^0		Ci-St		0				2		Ci-St		0				1^0		St	
28	0-1		St		0-1		St		0			∞°	0				0				0			
29	1				0				0				0				0				0			
30	0				1				0				0				0				0			
Mean	4.2				4.0				3.0				3.0				2.9				3.2			

1901. December.

Gaasefjord. $\varphi = 76^{\circ} 40'$ N. $\lambda = 88^{\circ} 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0				0				0				0				0				0			
2	0				4		Ci-St		3		Ci-St		3°		Ci-St		10°		St		10		St	
3	0			∞	6				7				6			∞	4		St	∞	3		St	∞
4	8				3				4			∞°	5			∞°	5			∞°	6		St	∞°
5	10		Nb	$*^{\circ}$	6		Nb	$*^{\circ}$	3		Nb	$*^{\circ}$	3		St		2		St		3		St	
6	10		Nb		10				2		St		4		Nb	∞°	7		Nb	∞°	9		Nb	∞°
7	10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$	10°		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$
8	6			$*^{\circ}$	10			$*^{\circ}$	10			$*^{\circ}$	10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$	10		Nb	$*^{\circ}$
9	0				0				0				0				2		St	∞°	3		St	∞°
10	0				9			$\infty^{\circ} *^{\circ}$	2			$*^{\circ}$	4		St	∞°	4		St		7		St	
11	10		Nb	∞°	6				0				1		St		2		St		1		St	
12	0				0				0				0				0				0·1		St	
13	0				0				0				0				0				0			⊹
14	0				0				0				0				10°			∞°	10°			∞°
15	0				2				2				1				1		St		3		St	
16	10				10			$*^{\circ}$	10				10				10			$*^{\circ}$	10			
17	10			$*^{\circ}$	10				10				0				9		St		6		St	
18	0				0				0				0				0				0			
19	0				0				0				0			⊹	1			⊹	2			⊹
20	0				0				0				0				7		St		2		St	
21	3				10°		Ci-St		10°		Ci-St		5			$*^{\circ}$	4		St		3		St	
22	0			∞°	0				0				0				1		St		1		St	
23	0			∞°	2		St	∞°	0			∞°	7		St	∞°	4		St		2		St	
24	10°		St		10°		St		10°		St		4		St		10°		St	∞°	10°		St	∞°
25	10		St		10		St		10		St		10		St		10		Nb	$*^{\circ}$	10		Nb	
26	10		St	∞°	0				1		St		1°		St		1°		St		1°		St	
27	0				0				1				0				1		St		1		St	
28	8			⊹	8°	SE	St	∞°	9			∞°	10^2				6				10		Nb	$*^{\circ}$
29	9				10			∞°	10			$*^{\circ}$	10			$*^{\circ}$	10°				3°		St	
30	0				0				0				0				0·1		St		1		St	
31	0			∞°	0			∞°	0			∞°	1		St		3		St		4		Nb	
Mean	4.0				4.4				3.7				3.4				4.7				4.6			

1901. December.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.
1	0				0			
2	10		St		0			∞°
3	9			∞ ✱°	5			∞°
4	5				10			
5	10		Nb		6		St	∞°
6	7		St		10		Nb	✱°
7	10		Nb	✱°	10°		Nb	✱°
8	7			✱° ∞°	0			
9	2			∞°	0			∞°
10	8		St		8		St	∞°
11	1		St		1		St	
12	0-1		St		0-1		St	
13	0			⇸	0			⇸q
14	10°		Nb	✱°	10°		Nb	✱°
15	2		St		0			
16	10				10			
17	1		St		1			⇸
18	0				3		St	
19	3			⇸	3°		St	
20	1		St		0			
21	1		St		0			∞°
22	1		St		3°		St	
23	4		St	∞°	4		St	∞°
24	10		St		10°		St	
25	10		Nb		2		St	
26	1°		St		1°		St	
27	2		St		3			∞✱°
28	10°		Nb	✱°	10°		Nb	✱°
29	0				0			
30	2		St		2			∞°
31	10				10			
Mean	4.8				4.0			

Day	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.
1	0				0			
2	0			∞	0			∞
3	5				5			
4	9		Nb	✱°	10°		Nb	✱°
5	9		St		6		St	
6	10		Nb	✱°	10		Nb	✱°
7	10°		Nb	✱°	10		Nb	✱°
8	0				0			
9	0			∞°	9			
10	2		St	∞°	2		St	∞°
11	0				0			
12	0				0			
13	0				0			⇸²
14	10°		Nb	✱°	0			
15	10		Nb	✱°	2		St	
16	10			✱°	10			✱°
17	1			⇸	0			⇸
18	2		St		1-2		St	
19	3°		St		10°	NW	St	
20	3		St		2°		St	
21	0				0			
22	10°		St		10°		St	
23	4	ESE	St	∞°	5		St	
24	10°		St		10°		St	
25	6°		St		10°		St	
26	1°		St		0			
27	4			∞°	5			∞°
28	6		Nb	✱°	10°		Nb	
29	0				0			
30	1			∞°	1			∞°
31	10				5			
Mean	4.4				4.3			

Day	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	10°				5°			
2	0			∞	0			∞
3	4				9			
4	10		Nb	✱°	10		Nb	✱°
5	3		St		10		Nb	
6	10°		Nb	✱°	10°		Nb	✱°
7	10		Nb	✱°	3			✱°
8	0				0			
9	0			∞°	0			
10	9°		Nb	✱°	8°		Nb	∞°
11	3				0			∞°
12	0				0			
13	0			⇸²	0			⇸²
14	0				0			
15	1		St		4			
16	10				10			
17	0			⇸	0			
18	4		St		3		St	
19	6°		Ci-St		0			
20	0				0			
21	0			∞°	0			
22	10°		St		10°		St	
23	9°		St		10°		St	
24	10		St		10		St	
25	0			∞°	10°		St	
26	0				0			
27	6				7			⇸
28	8				7			
29	0				0			
30	1			∞°	0			
31	5				4			
Mean	4.2				4.2			

1902. January.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	5				10				5				3				2		St		2		St	∞°
2	0				0				0				0·1		St		0·1		St		1·2		St	∞°
3	0				0				0				0				0·1		St		1		St	
4	0				0				0				0				0				0			
5	0				0				0				0				0				1		St	
6	0				0				0				0				0				0			
7	0				0				0				0				0				0			
8	0				0				0				0				0				0			
9	0				0				0				1		St		1		St		2		St	
10	0				0				0				0				0				0			
11	0				0				0				0				0				0			
12	0				0				0				0				0				0			
13	0				0				0				0				0				0			
14	0				0				0				0				0				0			
15	0				0				0				0				0				0			
16	0				0				0				1		St		7		St		10°		St	
17	0				0			∞°	0			∞°	0			∞°	3		St		5		St	∞°
18	0				10°		St	∞°	10°		St	∞°	0				3°		St		3°		St	
19	2		St		2		St		1		St		3		St		2		St		9°		St	
20	8°			∞°	6			∞°	4			∞°	1·2			∞°	3		St		2		St	
21	0·1		St		2°		St		1°		St		1°		St		1		St		2		St	
22	3		Ci-St		3°		Ci-St		9°		St	∞°	2 1		CI-ST ST		1		St	∞°	1		St	∞°
23	0				4°		Ci-St		0				2		Ci-St		2°		St		1°		St	
24	0				0				0				0				1		St		1		St	
25	2		St		1		St		0				0				0				0			
26	0				0				0			∞°	0				0				0			
27	0			∞°	0				0				0				2	N	Ci-St		0·1		Ci-St	
28	1		St		1		St		3		St		2		St		2		St		3		CI-ST ST	
29	3		St		4°		St		3		St		4		St		8		St		9°		St	
30	0				0				0				0				0				0			
31	0				0				0				0				0				0			
Mean	0.8				1.4				1.2				0.7				1.3				1.8			

1902. January.

Gaasefjord. $\varphi = 76° 40' N.$ $\lambda = 88° 38' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	3		St	∞°	3		St	∞°	0				1		St		2		St		3			
2	2		St	∞°	2		St		0				0				0				0			
3	2°		St		1°		St		0				0				0				0			
4	0				0				0				0				0				0			
5	0-1		St		0-1		St		0				0				0				0			
6	0-1		St		0				0				0				0				0			
7	0				0				0				0								0			
8	0				0				0				0				0				0			
9	0-1		St		0				0				0				0				0			
10	0				0				0				0				0				0			
11	0				0				0				0				0				0			
12	0-1		St		0				0				0				0				0			
13	1		St		0-1		St		0				0				0				0			
14	0				0				0				0				0				0			
15	0				0				0				2		Ci-St					∞°				∞°
16	5		St		3		St	∞°	0				0				0				0			
17	10°		St	∞°	10°			∞°	10°			∞°	10°			∞°	2		St		0			
18	3°		St		3°		St		2°		St		3°		St		5°		St		3		St	
19	10°		St		10°		St		10°			∞°	10			∞°	10°			∞°	8°			∞°
20	0				0				0				0				0				1		St	
21	3		St		3		St		1°		Ci-St		8°	SE	Ci-St		6°		Ci-St		6		Ci-St	
22	1		St		1		St		1		St		0-1		St		1		St		0			∞°
23	1°		St		1°		St		0-1°		St		0-1°		St		1°		St		0			
24	1		St		1		St		1		St		2°		St		1°		St		0			
25	0				0				0				0				0				0			
26	0				0				0				0				0				0			
27	0-1		Ci-St		0-1		Ci-St		0				0				0				0			
28	3		St		4		St		4		St		4				3				1			
29	4		St		4		St		2		St		2		St		0				0			
30	0				0				0				0				0				0			
31	0				0				0				0				0				0			
Mean	1.7				1.6				1.0				1.4				1.0				0.7			

1902. February.

Gaasefjord. $\varphi = 76^{\circ} 40'$ N. $\lambda = 88^{\circ} 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				2		St		1		St		2		St	
2	0			∞°	0				0				4°		St		3°		St		3°		St	
3	0				0				0				1		St		1		St		1		St	
4	0				0				0				0				0				0			
5	0				0				0				0				0-1°		St		1°		St	
6	0				0			∞°	0				0-1		St	∞°	0-1		St		1		St	
7	0				0				0				0				0-1		St		1°		St	
8	10				10			∞°	10			∞°	10		St		10		Nb		10		Nb	*°
9	10		Nb		9			*°	2				6		Nb		7				8		Nb	
10	0				0				0				0				0				0			
11	0				10			*°	10			*	10		Nb	*°	10		Nb		10		Nb	*°
12	10		Nb		6				3		St		10		Nb		10		Nb	*°	9°		St	∞°
13	2		St	*°	6				10			*°	10		Nb	*°	10°		St		3		St	
14	0				0				0				0				0				0			
15	0				0				0-1		St		10°_{2}		CI-ST ST		10°_{1}		CI-ST ST		0°_{1}		CI-ST ST	
16	0				7°		St		6			∞*°	5			∞	4		St	∞	0			
17	0				0				0				0				0				0			
18	0				0				0				0				0				0			
19	0				0				0				0				0				0			
20	0				0				0				0				0-1		St		0-1°		St	
21	3°		St		4°		St		3		St		10		St		10		St		10		St	
22	10		Nb	*°	10		Nb	*°	10		Nb	*°	9		Nb	∞°	7		ST FR-NB	*°	10°		Fr-Nb	*°
23	10		Nb		0		Nb		0		Nb	*°	10		Nb	*°	10²		Nb	*°	10		ST-CU NB	*°
24	4		St		2		St		5		St		0				0-1		St		0-1		St	
25	0				0				0				0				0				0-1°		St	
26	0				1		St		1		St		1		St		0-1		St		0			
27	0				0				0				0				0				0			
28	0				0				0				0-1		St		0				1°		St	
Mean	2.1				2.3				2.2				3.4				3.4				3.1			

1902. February.

Gaasefjord. $\varphi = 76^{\circ} 40'$ N. $\lambda = 88^{\circ} 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	2		St		2		St	∞°	0				0				0				0			
2	3°		St		3°		St		1		St		0				0				0			
3	1		St		1		St		1		St		1		St		1		St		0			
4	0				0				0				0				0				0			
5	1°		St		7°		St		10		St		10				3		St		0			
6	0-1		St		0-1		St		0-1		St		0				0				0			
7	2°		St		2°		St		2°		St		3		St		3		St		3		St	
8	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	
9	0				0				0				0				0				0			
10	0				0				0				0				0				0			
11	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	*°
12	5		St	∞°	3		St	∞°	3		St		3°		St		2°		St		0			
13	10°	NW	ST FR-ST		10°		ST FR-ST		9		Fr-St		5		St		2		St		1		St	
14	0				0				0				0				0				0			
15	2°		St		2°		St		0-1		St		1°		St		4°		St		2		St	
16	0				0-1		St		0				0-1		Ci-St		0				0			
17	0				0				0				0				0				0			
18	0				0				0				0				0				0			
19	0				0-1		St		0-1		St		1	ENE	St		2°		St		6°		Ci-St	
20	0-1²		St		0-1		St		9°		St		6		Ci-St		3°		St		3			
21	10		St		10		St		10		St		9	ESE	St		10		St		10		Nb	*°
22	10		Nb	*	10		Nb	*°	10		Nb	*°	10		Nb		10°		Nb		10		Nb	
23	10	E	Nb	*°	10		Nb	*°	9		St		8		St		6		St		4		St	
24	3°		St		3°		St		2°		St		0				0				0			
25	0				5	E	Ci-St		3	E	Ci-St		0				0				0			
26	0-1		St		0				0				0				0				0			
27	0				1°		St		3°		St		3		St		10				0			∞°
28	3		St		3		St		3		St		2		St		1		St		0			
Mean	3.0				3.4				3.5				3.0				2.8				2.1			

1902. March.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				2		St		3		St		0				0				0			
2	0				0				0				10°		St		10°		St	∞°	5°		St	∞°
3	2				0				0				0			∞°	0				0			
4	3				0			∞°	0				0				0				0			
5	0				0				1				3°		St		3°		St		5°		St	
6	1		St		3		St	∞°	10°		St	∞°	7			∞°	5			∞°	3			∞°
7	0				0				0				0·1		St		0				0			∞°
8	0				0				10			⊹	8			⊹	7			⊹	6			⊹
9	2		St		3				2		St		3		St	∞°	2°		St	∞°	1		Ci	
10	0				0			∞°	0				0				0				0			
11	0				0				0				0				0				0			
12	0				0				0				0				0				0			∞°
13	0				0				0				0				2°		St		2°		St	
14	1		St		4		St		5		St		9		St		10		St		10°		Nb	✱°
15	0				0				0				0			≡	0			≡	0			≡
16	0			∞°	0			∞°	0			∞°	0				0				0			
17	0				0				0				0				0·1		St		1		St	
18	3°		St	∞°	0				1°		St		0				4°		St		4°		St	
19	3			∞°	7			∞°	10		Nb		10		Nb	∞°	10°		Nb	∞°	10°		St	∞°
20	4			∞°	4			∞°	5			∞°	5			∞°	6			∞°	6			∞°
21	10			∞°	10			∞°	10				10²		Nb	✱°	10		St		10		Nb	✱°
22	0				0				0				0·1		St		0·1		St		2	SW	St	
23	3				4				5				6				6		St		4		St	
24	10		St		10		St		10		St		10		St-Cu		10		St-Cu		10			⊹
25	10				10				10				10				10				10			
26	10				9-10				9-10				10		St		10		St		10		St	
27	10			✱°	7			∞°	8°		Ci	✱°	2		St-Cu	∞°	1		St-Cu		3	N	St-Cu	∞°
28	1°		St		0·1		St		0				0				2°		St		0			
29	10			∞°	10		St		5		St-Cu		10°		St		10		St-Cu		10		St-Cu	
30	1		St		1		St		2		St		0				0				0			
31	0				0				5		St		10°		St	∞°	10		Nb	✱°	10		Nb	✱°
Mean	2.7				2.8				3.6				4.0				4.2				3.9			

1902. March.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0-1		St		0-1		St		0				0				0			
2	7		St	∞°	8		Ci-St	∞°	10		St	∞	5		St	∞*°	4			∞	3			*°
3	0				10°				10°		St		2		St	∞°	1		St	∞°	10°			
4	0				0				2°		St		1°		St		0				0			
5	5°		St		8°		St		10°		St		7		St		5		St		2		St	
6	0			∞°	0			∞°	0				0				0				0			
7	0			∞°	0			∞°	0-1				0			+	0				0			
8	4		Ci-St		10°		St	∞°	10		Nb	*°	10		Nb	*°	10°				8°		Nb	
9	2		St		3		St		2°		St		3		St		2		St	∞°	2		St	
10	0				0				0				0				0				0			
11	0				0				0				0				0				0			
12	0-1		St	∞°	0				0-1		St		0-1		St		0				0			
13	3°		St		3°		St		3°		St		3°		St		3°		St		0			
14	10°		St	∞°	3		St		3		St		2		St		1		St		1			
15	0			≡	0			∞°	0				0				0				0			
16	0				0				0				0				0				0			
17	0				0				1		St	∞°	4°		Ci-St		3°		Ci-St	∞°	6°		St	∞°
18	5°		St		5°		St		5°		St		5°		St	∞°	3			∞°	0			∞°
19	10°		St		3		St		4		St		3		St		3			∞°	3			∞°
20	7			∞°	7			∞°	8			∞°	8			∞°	9			∞°	9			∞°
21	10		Nb		10		Nb		10		St		0				0				0			
22	4	W	St		5		St		4	W	St		4	NNW	CI-ST ST		6°		St		3		St	
23	7		St		8		St-Cu		9		St-Cu		10				10				10			
24	10		Nb		8	SE	ST-CU FR-ST		10	SE	St		10			*°	10				10			
25	9-10		Nb		10				10				10				10				10			
26	10		St		10		St		10		Nb	*°	10		Nb	*°	10		Nb	*°	10			*°
27	9	N	St-Cu	∞°	5	NNW	St-Cu		5	N	St-Cu		2/1		St		1		St-Cu		2		St	
28	2		St		3		St		3		St	∞°	5°	N	ST-CU ST	∞°	10			∞°	10			∞°
29	10		St-Cu		10		St-Cu		7		St-Cu		3		St		2		St		1		St	
30	0				0				0				1-2		St		1		St		1		St	
31	10		Nb	∞°	10°		St	∞°	10		St		10		St		10°		St		0			
Mean	4.4				4.5				4.8				3.8				3.7				3.3			

1902. April.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	0				0				0				0				0				0			
2	0				2		St	∞°	3		St	∞°	2		St		1		St		1		St	
3	1		St		2		St		3		St		3°		St		3°		St		3°		St	
4	0				0				0				0				0				0			
5	0				0				0				0				0				3°		Ci-St	
6	10		Nb		10		Nb	*°	10		Nb	*°	10		Nb	*°	10°		Nb	*°	3		St	
7	0				5°		Ci		10°		Ci-St		10		Nb	*°	10		Nb	*°	10		Nb	
8	10		Nb	*°	10		Nb	*°	10		St		10		Nb	*°	10		St		10	ESE	St	
9	5°		St		2		St		4		St		10		St		6°		St		7		St	
10	7°		St		8°		St		7°		St		10°		St		8		St-Cu		10		St-Cu	
11	10°		St		3°		St		7°		St		10°		Nb	*°	10°		St		7°		St	
12	2		St		1		St		7		St		3°		St		0-1°		St		0			
13	1°		St		0				0				1°		St		1°		St		1°		St	
14	3		St		3		St		6°		St		6°		St		5°		St		6°		St	
15	5°		St		4°		St		4°		St		3°		St		3°		St		3°	WSW	St	
16	3°		St		3°		St		1°		St		0				1°		St		1°		St	
17	2°		St		2°		St		1°		St		0				0				0			
18	0-1		St		1		St		2		St		6°		St		5	NW	Ci-St St		4	NW	Ci-St St	
19	3°		St		4°		St		3		St		3		St	∞°	3-4°		St		2°		St	
20	2		St		2		St		1				0				0-1°		St		1°		St	
21	4-5		St		4		St		1		St		2		St	∞°	3		St	∞°	9		St	∞°
22	3		St	∞°	2°		St		5°		St		4		St	∞°	10		Nb	*°	10		Nb	*°
23	10		Nb		10		Nb	∞°	10		Nb	*°	10		Nb	*°	10		Nb	*°	8°		Nb	
24	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	8	S	Nb	
25	10°		St		8°	S	Ci		0				6°		Ci		5°		Ci		6°		Ci	
26	1		St		0				1°		St		0				4	SE	Ci-Cu		4	SE	Ci-Cu	
27	1	SE	St		1		St		3		St		6		Ci-St		6	NE	Ci-St		4		Ci-St	
28	4		Ci-St		3°		Ci		2°		Ci		1°		Ci		3		St		2	SE	St-Cu	
29	10		Nb	*	10		Nb	*°	10		Nb	∞°	10		Nb	*°	10		Nb	*°	10		Nb	∞°
30	1		Ci-St		4		Ci-St		3		Ci-St		8°		Ci		8°		Ci		7°		Ci	
Mean	4.0				3.8				4.1				4.8				4.9				4.7			

1902. April.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.
1	2°		St		3°		St	
2	2		St		2		St	
3	2°		St		1°		St	
4	0				0			
5	4°		St		4°		St	
6	2		St		1		St	
7	10°		Nb		10°		Nb	
8	8	E	St		10°		St	
9	5		St		5	N	St	
10	10		Nb	*°	10		St-Cu	
11	7°		St		10°		St	
12	0				0			
13	0-1°		St		0-1°		St	
14	8°		St		9°		St	
15	2		St		3°		St	
16	0				2		St	
17	0				0			
18	3°		St		2°		St	
19	1°		St		2°		St	
20	1°		St		1°		St	
21	8	N	St		8	N	St	
22	10°		Nb	∞°	10		Nb	∞°
23	8°	S	Nb	*°	4°		St	∞°
24	10°	S	Nb		10	S	Nb	
25	7°	SE	St	*°	5°	SE	Ci-St	∞°
26	9	SE	Ci-St		4	SE	Ci-St	
27	2		Ci-St		2°		Ci-St	
28	8°	E	Ci-St		6°	S	Ci-St	
29	8	ESE S?	CI-ST ST		3	NE S?	CI-ST ST	
30	4	N	CI-ST FR-ST		3	N	CI-ST FR-ST	
Mean	4.7				4.4			

Day	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.
1	3°		St		3°		St	
2	2		St		7°	N	St	
3	0				1°		St	
4	0				1°		St	
5	10°		St		10°		Nb	*°
6	0				0-1°		St	
7	10°		Nb		10		Nb	*°
8	10		St		10		St	
9	4		St-Cu		4		St-Cu	
10	10		St-Cu		10		Nb	
11	6°		St		4		St	∞°
12	0				0			
13	1°		St		2°		St	
14	8°		St		10°		CI-ST ST	
15	3°		St		2°		St	
16	7°		St		4°	SW	St	
17	0-1		St		0			
18	2°		St		2°		St	
19	2°		St		0-1		St	
20	0-1°		St		5	NW	St	
21	10°		Nb	∞°	10°		Nb	*°
22	10°		Nb	*°	10°		Nb	*°
23	4		St		4		St	∞°
24	5	S	Nb		10°	S	St	
25	4°	SE	Ci-St		3°		St	
26	10	SE	St		10	SE	St	
27	0				1°		Ci-St	
28	6°	S	Ci-St		8°	E S?	CI-ST ST	
29	3	S E	CI-ST FR-ST		5	E S	CI-ST FR-ST	
30	5	N	CI FR-ST		4	E N	CI-ST FR-ST	
Mean	4.6				5.1			

Day	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	2°		St		1°		St	
2	3		St		3		St	
3	0-1°		St		0			
4	1°		St		0			
5	10		Nb	*°	10		Nb	
6	0				0			
7	10		Nb	*°	10		Nb	*°
8	10°		St		10°		St	
9	4		St-Cu		6		St-Cu	
10	10		Nb	*°	10		Nb	*°
11	3		St	∞°	2		St	∞°
12	1°		St		1°		St	
13	2°		St		2		St	
14	10°		CI-ST ST		7°		St	
15	2°		St		0			
16	1°		St		0-1°		St	
17	1		St		1		St	
18	3°		St		2°		St	
19	3°		St		6°		St	
20	10°	NW	St		9	NW	St	
21	3 10°		ST NB	*°	3		St	∞°
22	8		Nb	*°	9		Nb	*°
23	10		Nb	*°	10		Nb	*°
24	10°		St		10°		St	
25	6°		ST-CU ST		2°		St	
26	10	SE	St		9	SE	St	
27	3°		St		2°		St	
28	8		St		9		St	
29	5		St		1		St	
30	3		CI FR-ST		10		Nb	*°
Mean	5.2				4.5			

1902. May.

Gaasefjord. $\varphi = 76^\circ 40' N.$ $\lambda = 88^\circ 38' W.$

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.
1	10°	SE	CI FR-NB		7				4°		Cu	
2	4		St		1	SE	St		0			
3	3	N	Fr-St		1		St		2		St	
4	0-1°		St		0				2	N	St	
5	9		Fr-Nb		8		St-Cu		5		St	
6	0				0				0-1		Ci	
7	5°	NE	Ci-St		2		Ci		10	S	St	
8	10		Fr-Nb	∞°	8		Fr-Nb		8		Fr-Nb	
9	10		Nb	*°	10		Nb	*°	10		Nb	
10	10		Nb		10		Nb		7°	NE	St-Cu	
11	9		Fr-Nb		10		Fr-Nb		6		St-Cu	
12	10		Nb	*	10		Nb	*	10		CI-ST NB	*°
13	10		Nb	*°	10		Nb	*°	10	S	Nb	*°
14	10		Nb	∞°	10		Nb		10		Nb	
15	5		CI-CU ST		4	N	Ci-St		5	N	St	
16	10		Nb		10		St	*°	10		St	*°
17	0				0				0			
18	1		Ci		1-2		Ci		9		Ci-Cu	
19	10		Nb	*°	10		Nb	*°	10		Nb	*°
20	6	N	Fr-Nb		7	N	Fr-Nb		0			
21	3		Cu		3		St		2		St-Cu	
22	5°	E	St		3°		St		0-1		St	∞°
23	1				3		St		1			
24	0				0				0			
25	0				0				0			
26	0				0				0			
27	0				0				0			
28	10		Nb		10				10		St	*°
29	5°		Fr-Nb		3	SE	Fr-Nb		0			
30	4	N	CI-ST ST		5	N	St		7	N	St	
31	4	NE	St-Cu		4	NE	St-Cu		4	N	St	
Mean	5·3				4·9				4·7			

Day	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	9		St		10		St		6		Ci-St	
2	0				0				2°		St	
3	4		St		1		St		1		St	
4	3		St	∞°	4		St	∞°	5		St	∞°
5	2	S	Cu		8°	S	Ci-Cu		8	S	St	
6	0				2		Ci		4		Ci	
7	10		Nb		10		Nb		10	W	St	
8	10		Fr-Nb		10		Nb	*°	10		Nb	*°
9	10		Nb	*°	10		Nb	*°	10		Nb	*°
10	2		St		1		St		1°	S	St	
11	3		St-Cu		3		Ci-St		6		Ci-St	
12	10		Nb	*	10		Nb	*°	10		Nb	*°
13	10		Nb	*°	10		Nb	*	10		Nb	*°
14	10		Nb	∞°	8		Fr-Nb	∞°	8°		Fr-Nb	∞°
15	2°		Ci-St		5°		Ci-St		1°		Ci	
16	10	N	Nb		6	N	Cu-Nb		1-2		Cu	
17	0				0				0			
18	7	S	St		10	S	St		10		Fr-Nb	*°
19	10		Nb	*°	10		Nb	*°	10		Nb	
20	2°	N	Cu		1	N	Cu		2°		Cu	
21	3		CI-ST CU		1		Cu		0			
22	0-1		St		1				1		St	
23	1				1				1		St	
24	0				0				0			
25	0				0				0			
26	0				0				0			
27	2°		St		4°		St		3°		St	
28	10		St		10		Nb		10		Nb	
29	0				0				1	E	St-Cu	
30	4	N	St		3	N	St		8	N	Fr-St	
31	3	N	St		1	N	ST FR-ST		9	N	Fr-Nb	
Mean	4·5				4·5				4·5			

1902. May.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	5	E S	Ci-St Fr-St		3		Ci-St Fr-Nb	*°	4		Ci-St Fr-St		4	NE	Ci-St St		6		Ci-St St		5		Ci-St St	
2	0·1°		St		0·1°		St		0·1°		St		1		Fr-St		4	N	Fr-St		8	N	Fr-St	
3	2	N	Fr-St		1	N	Fr-St		1	N	Fr-St		1	N	Fr-St	∞°	1	N	Fr-St	∞°	1			∞°
4	4	N	Fr-St		4	N	Fr-St	*°	4	N	Fr-Nb		8	N	Fr-Nb		9	N	Fr-Nb		10	N		
5	8	E	Fr-Nb		7	E	Fr-St		10		Nb	*°	7	E	Ci St Fr-St		1		St		1		St	
6	3°		Ci-St		3°		Ci-St		4°		Ci-St		7°	NE	Ci-St		7°	NE	Ci-St		5°	NE	Ci-St St	
7	10		Nb	*°	10		Nb	*°	10		Fr-Nb	*°	10		Fr-Nb	*° ∞°	8		Fr-Nb	∞°	10		Nb	∞°
8	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb		10		Nb	*°	10		Nb	*°
9	10°		Fr-Nb		10°		Fr-Nb		10		Nb		10		Nb		10		Nb		10		Nb	
10	8°		St-Cu		8°	S	St-Cu		3	S	St-Cu		1/8	E S	Ci-St St-Cu		7		Ci-St St		7		Ci-St St	
11	5°		St		5°		Ci-St		8°	E	Ci St		10		St		10		St		10		St	
12	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*	10		Nb	*	10		Nb	*°
13	10		Nb	*°	10		Nb	*°	10		Nb		10°		Nb	*°	10		Nb	∞°	10		Nb	∞°
14	8		St-Cu		8	SW	St-Cu		10		St-Cu		10		Fr-Nb	*°	9		Ci-St St		8		Ci-St St	
15	2	N	Fr-St		2	N	Fr-St		3	N	Fr-St		4	N	Fr-St		4	N	Fr-Nb		10		Nb	*°
16	0				0				1	N	Fr-St		1	N	Fr-St		0				0			
17	1	N	Fr-St		1°		St		1°		St		1°		St		1°		St		2		St	
18	10		Nb	*	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°	10		Nb	*°
19	10°		St-Cu		9	N	Fr-St		10	N	Fr-St	*°	8	N	Fr-Nb		7		Fr-Nb		10		Fr-Nb	
20	5		Ci-St		5		Ci-St		5°	N	Ci-St Fr-St		5	N	Ci-St Fr-St		3		Ci-Cu		3		Ci-Cu	
21	0				0				0				0				0·1		St		1		St	
22	1		St		1		St		1		St		1		St		0.5		St		2		St	
23	0				0·1°		St		1°		St		0·1°		St		0·1		St		0			
24	0				0				0				0				0				0			
25	0				1		Ci		2		Ci		2		Ci Ci-Cu		1		Ci		0			
26	0				0				0				2		St		0				0			
27	3°		St		1		St		3	N	St		7	N	St-Cu		10	N	St		9°	N	St-Cu	
28	10		Nb		10		Nb		10		Nb		10		Nb		10		Nb	*°	10		Nb	*°
29	5	E	St-Cu		2	E	St-Cu		3	E	Ci Cu		1		Ci-St		2		Ci-St		1	N	Ci-St	
30	10		Nb	*°	8	N	Cu-Nb	*°	4	N	Cu		2	N	St Cu		2		St		3	N	St	
31	9		Fr-Nb		6/2		St-Cu Fr-St		4		St-Cu		6	NNW	St		7	NNW	St		4/4		St-Cu Fr-St	
Mean	5·2				4·7				4·9				5·4				5·2				5·5			

1902. June.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Noon Cloud. Am.	Noon Cloud. Dir.	Noon Cloud. Fm.	Noon Pr.
1	10				10		Nb	*°	10		St Fr-St		6		Fr-St		2		Fr-St		0			
2	3		St		1°		St		3				3		St Fr-St		2 2	N	St-Cu Fr-St		2		St-Cu	
3	10		Nb		10		Nb		10		Nb	*°	10		Nb		10		Nb		5°	SSE	Cu-Nb	
4	1		St		3		Ci-St		2		Ci-St		1		Ci-Cu		2		Ci-St		1		Ci-St	
5	0				0				0				0				1		St		9		St-Cu	
6	2		Cu		5	ESE	St-Cu		8	SE	St		5°	SE	Ci		8°	SE	Ci		10°		Nb	
7	0				0				0				1		St		1		Ci-St		1°		Ci-St	
8	1		Ci-St		4	SE	St		2		St		9		St		10°		St		10		St	
9	10		Fr-Nb	*°	10		St		9		St		10		St		10		St		9		St-Cu	
10	10		Nb		10		Fr-Nb		9		Fr-Nb		10				10		Nb		8		St	
11	10		Fr-Nb		3		Ci-Cu		0				0				0				1°		Ci	
12	0				0				0				1		Ci-St		0-1		Ci-St		0-1		Ci-St	
13	0				1		Ci		1		Ci		0				0				0			
14	1		Fr-St		0				0				0				0				0-1		Fr-St	
15	9		Fr-St		9		Fr-Nb		9		Fr-Nb		10		Fr-Nb		10		Nb	*°	9		Fr-Nb	
16	4°		Fr-Cu		2		St		3		Fr-St		6		St-Cu		5		Ci St-Cu		8	S	St-Cu	
17	10		St-Cu		10		St		10		St		10		St		10		Fr-Nb	*°	9		Fr-St	
18	5	SW	St-Cu		5	S	Ci-Cu St-Cu		7				10	S	St		10		St		10		St	
19	6°		St		8	W	St-Cu		6	WSW	St-Cu		8	W	St		4°	S	St		4	W	St-Cu	
20	4°		Ci-St St		6		Ci-St St		6		Ci-St St		5		Ci-St St		4°		Ci St		5°		Ci St	
21	4	SW	Ci-St St		7		St-Cu		8		St		10		St		6	S	Ci-St St		8	SE	St-Cu St	
22	10	SE	Fr-Nb	●°	10		Nb	●°	10	S	Nb	●°	10		Nb		10	S	Nb	●°	10	S	Nb	
23	10		Nb	●°	10		Nb	●°	10		Nb	●°	10		Nb		10		Nb		10		Nb	
24	10	S	Fr-Nb	●°	10		Nb	●°	10		Nb		10		Nb		9		St-Cu		10		St-Cu	
25	10	S	St		10		St-Cu		9	WNW	St-Cu		5	WNW	St-Cu		2°		St		4		Cu	
26	4°		St		6°		St		4				3				1		St		2		St	
27	10	S	Fr-Nb		10	S	Fr-Nb		10	S	Fr Nb		10		Fr-Nb		10	S	Fr-Nb		9-10	S	Fr-Nb	
28	9	SSE	St-Cu		10	S	St		10	S	St		10		St		10	S	St		7	S	St-Cu	
29	0				0				0				0				0				0			
30	0				0				0				0				0				0			
Mean	5.4				5.7				5.5				5.7				5.3				5.5			

1902. June.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	1		St Fr-St		3		St Fr-St		7		St-Cu Fr-St		9		Fr-St		10		Fr-Nb	*°	3		St Fr-St	
2	6		St-Cu		3		St-Cu		10		Nb		10		Fr-Nb		10		Fr-Nb		10		Nb	
3	1-2		St		2		Ci-St		1		St		1		St		2	E	St-Cu		1		St	
4	3	N	St-Cu		0-1		St		0-1		St		0-1		Fr-St		0				0			
5	8	SE	St-Cu		9		St-Cu		9		Nb	*°	9	SE	St-Cu		3	SSE	St-Cu		4	SSE	St-Cu	
6	9	S	St-Cu		6	SSE	St-Cu		2		St-Cu		0				1°		St		1		St	
7	1-2		Ci-St		4		Ci-St		4		St		2		St		2		Ci-St		2	SE	St	
8	10		St-Cu		10		Nb		7	E	St-Cu		9	E	St-Cu		10		Fr-St		10		Fr-Nb	*°
9	10		Fr-Nb		10		Fr-Nb		10		Fr-Nb		10		St		10		St		10		St	
10	10		Nb		10		Nb	●°	10		Nb		10		Nb	●°	10		Nb		10		Nb	
11	2°		Ci-St		1°		Ci-St		0				0				0				0			
12	1		Ci-St		0-1		Ci-St		0				0				0				0			
13	0				0-1		Ci-St		0				0				1		St		1	N	Fr-St	
14	1		Fr-St		0-1		Fr-St		1	NW	St		3	NW	Fr-St		7	NW	Fr-St		9		Fr-St	
15	3°		Fr-St		2°		Fr-St		1°		Fr-St		2	NNE	Fr-St		3°		Fr-Cu		4°		Fr-Cu	
16	9		St-Cu		10		Nb		10		Nb	●*°	10		Fr-Nb	●°	10		Nb		10		St-Cu	
17	7	SE	St-Cu		4	SE	St-Cu		1	SE	St-Cu		1	SE	St-Cu		3	SE	St		3	S	St	
18	9°	SSE	St		3°	SSE	St		3°	SSE	St		9	W	St		9	SW	St		9	S	St	
19	2		St-Cu St		3	W	St-Cu St		2	W	St-Cu		2		St-Cu St		2		St-Cu St		4°		Ci-St St	
20	5		Ci-St St		3		Ci-St St		7	W	Ci-St St		6	W	Ci-St St		6	SW	Ci-St St		5	SW	Ci-St St	
21	9	SE	St-Cu		10	SE	St-Cu		10	SE	Fr-St		10	SE	Fr-St		10	SE	St Fr-St		10	SE	St St	
22	10	SSE	Nb		10		Fr-Nb		10		Fr-Nb		10		Fr-Nb	●°	10		Fr-Nb	●°	10	S	Fr-Nb	●°
23	10		Nb		10		Nb		10		Nb		10		Nb		9	SE	Fr-Nb		9-10		Fr-Nb	
24	10		Nb		10		St		10		St		10		St-Cu		10		St-Cu		10		St	
25	5		Cu		1		Ci		1-2		Ci-St		10		St		1°		St		7°		St	
26	2°		St		2°		St		7	S	St-Cu		3		St		2		St		7	S	St	
27	9	S	Fr-Nb		10	S	Fr-Nb		10	S	Fr-Nb		10	S	Fr-Nb		10	S	Fr-Nb		9		Ci Fr-St	
28	0	SE	Fr-St		10	SE	St		10	SE	St		9	SE	St		3	SE	St-Cu		0	SE		
29	0				0				0				0				0				0			
30	0-1°	E	Fr-St		0				0				0				0				0			
Mean	5.5				5.0				5.2				5.5				5.1				5.3			

1902. July.

Gaasefjord. $\varphi = 76^\circ 40'$ N. $\lambda = 88^\circ 38'$ W.

Day	2h				4h				6h				8h				10h				Noon			
	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.	Cloud.			Pr.
	Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.		Am.	Dir.	Fm.	
1	0				0				0				0				0				0			
2	0				0				0				0				2	NW	Ci-St		2		Ci-St	
3	0				0		Ci		1		Ci-Cu		1		Ci-Cu		2		Ci-Cu		2		St	
4	1°		Ci-St		0-1°		Ci-St		0				0				0-1°		St		0			
5	7	S	St		7		St		3		St		3		St		2/2		St-Cu/St		4		St-Cu	
6	2		St		1°		St		7	NE	St-Cu		8	NE	St-Cu		6	NE	St-Cu		3	NE	St	
7	0				0				1		St		1		St		1°		St		2	NE	St-Cu	
8	1	NE	St		0				0				0				0-1	NE	Cu		0-1		Cu	
9	0				0				1		Ci		3		Ci-St		9		Ci-St		9		Ci-St	
10	10		St		10		St		6		St		2		St		3		St		3°		St	
11	4°		St		5		St		10		St		10		St		10		St		10		St	
12	2		Ci-St		3		Ci-St		1				2				1		Ci-St		1°		Ci-St	
13	0				0				0				0				0				1°		St	
14	0				0				0				0				0				0			
15	1		St		4	E	St		4	NE	St-Cu		3	E	St-Cu		0				0-1		St-Cu	
16	3		St		4		St		2		St		2		St-Cu		0				0			
17	1		Ci-St		1°		Ci-St		1		Ci-St		0				0				0			
18	0				0				0				0				0				0			
19	0			∞	0				0				0				0				0			
20	8				1		St		1		St		0-1		St		0-1°		St		1		St	
Mean	2.0				1.9				1.9				1.3				2.0				2.0			

1902. July.

Gaasefjord. $\varphi = 76° 40'$ N. $\lambda = 88° 38'$ W.

Day	2h Cloud. Am.	2h Cloud. Dir.	2h Cloud. Fm.	2h Pr.	4h Cloud. Am.	4h Cloud. Dir.	4h Cloud. Fm.	4h Pr.	6h Cloud. Am.	6h Cloud. Dir.	6h Cloud. Fm.	6h Pr.	8h Cloud. Am.	8h Cloud. Dir.	8h Cloud. Fm.	8h Pr.	10h Cloud. Am.	10h Cloud. Dir.	10h Cloud. Fm.	10h Pr.	Midt. Cloud. Am.	Midt. Cloud. Dir.	Midt. Cloud. Fm.	Midt. Pr.
1	0				0				0				0				0				0			
2	0				1		St		0				0				0				0			
3	10°		Ci-St		5°		Ci-St		2°		Ci-St		1°	N	Ci-St		2°		Ci-St		2°		Ci-St	
4	0				0-1		St		0				1		St		1		Ci-St		3		St	
5	5	E	St-Cu		3	E	St-Cu		4	E	St-Cu		6	E	St-Cu		4	E	St-Cu		4		St	
6	2°		St		3	N	St-Cu		3	N	St-Cu		3	NE	Fr-St		0-1		Fr-St		0			
7	4	E	St		7	E	St		5	E	St-Cu		8	NE	St-Cu		4	NE	St		9	NE	St-Cu	
8	0				0				0				0				0				0			
9	9		St		10°		St		10		St		9		St		10		St		10		St	
10	5°		St		3°		St		5°		St		5/2		Ci-St / St		7°		St		5°		St	
11	3		St		4		St-Cu		3		Ci-St		4		Ci-St		5		Ci-St		7		Ci-St	
12	0				0				0				0				0				0			
13	1°		St		1°		St		2°		St		0				0				0			
14	0				0				0				0				0				1		St	
15	1°		St-Cu		1		St-Cu		0				1		St-Cu		1		St		1		St	
16	1		Ci-St		3°		Ci-St		3°		Ci-St		3°		Ci-St		2		Ci-St		2		Ci-St	
17	0				0				0				3°		Ci-St		1°		Ci		0			
18	0				0				0				0				0				0			
19	0				0				0				0				0				4			
20	2		St		1		St		2		St		3		St		4		St		8		St-Cu	
Mean	2.2				2.2				2.0				2.3				2.1				2.8			

AMOUNT OF CLOUD. DAILY PERIOD.

The following Table gives the monthly means of the amount of cloud at the bi-hourly observations at the winter quarters, the (weighted) means for the months, the number of observation-days, and the (weighted) means of all observations in the various years, for each alternate even hour.

January.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.7	1.0	1.0	2.4	2.1	2.4	2.3	1.7	1.3	1.2	1.1	0.8	1.45	31
1900	2.4	2.7	3.2	3.0	3.9	3.8	3.9	2.9	2.6	2.0	2.1	2.2	2.90	31
1901	1.4	1.2	1.1	1.6	2.3	2.0	2.8	2.9	1.9	2.4	2.5	2.0	2.00	31
1902	0.8	1.4	1.2	0.7	1.3	1.8	1.7	1.6	1.0	1.4	1.0	0.7	1.22	31
Mean	1.3	1.6	1.6	1.9	2.4	2.5	2.7	2.3	1.7	1.8	1.7	1.4	1.89	

February.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	2.9	1.9	1.9	3.2	3.3	3.1	3.3	3.4	2.5	1.9	1.5	2.1	2.58	28
1900	5.4	5.0	5.9	6.8	6.8	6.6	6.4	6.1	5.9	4.9	4.5	4.9	5.77	28
1901	3.3	3.0	2.9	4.3	4.2	3.7	3.6	4.3	3.9	3.7	3.6	3.1	3.63	28
1902	2.1	2.0	2.2	3.4	3.4	3.1	3.0	3.4	3.5	3.0	2.8	2.1	2.83	28
Mean	3.4	3.0	3.2	4.4	4.4	4.1	4.1	4.3	3.9	3.4	3.1	3.1	3.70	

March.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	0.8	0.6	1.2	2.8	2.8	2.3	2.3	3.2	3.4	1.9	1.3	1.0	1.97	31
1900	2.2	3.1	3.2	3.8	3.2	3.5	3.6	3.4	3.1	2.8	2.8	2.1	3.01	31
1901	2.9	3.4	3.5	4.0	3.9	4.0	4.2	4.3	3.7	3.0	2.9	2.7	3.54	31
1902	2.7	2.8	3.6	4.0	4.2	3.9	4.4	4.5	4.8	3.8	3.7	3.3	3.81	31
Mean	2.2	2.5	2.9	3.6	3.5	3.4	3.6	3.8	3.7	2.9	2.7	2.3	3.09	

April.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	5.3	4.6	4.3	4.7	4.9	5.2	5.0	5.0	5.6	5.6	5.3	4.9	5.03	30
1900	4.8	5.2	4.9	4.8	4.7	4.9	4.9	4.7	4.7	5.0	4.5	4.2	4.77	30
1901	4.0	4.2	4.4	4.3	3.8	4.4	4.0	3.8	4.2	4.3	4.8	4.3	4.21	30
1902	4.0	3.8	4.1	4.8	4.9	4.7	4.7	4.4	4.6	5.1	5.2	4.5	4.57	30
Mean	4.5	4.4	4.5	4.7	4.6	4.8	4.6	4.5	4.8	5.0	4.9	4.5	4.67	

May.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	4.2	4.1	4.1	4.1	4.7	4.5	3.8	3.6	3.4	3.8	4.2	3.9	4.03	31
1900	6.5	6.6	6.4	6.5	6.1	5.7	6.2	6.4	6.2	6.3	6.8	6.6	6.36	31
1901	7.3	7.1	7.4	7.6	7.4	7.6	7.2	7.1	6.9	7.0	7.3	7.0	7.24	31
1902	5.3	4.9	4.7	4.5	4.5	4.8	5.2	4.7	4.9	5.4	5.2	5.5	4.99	31
Mean	5.8	5.7	5.6	5.7	5.7	5.7	5.6	5.4	5.4	5.6	5.9	5.7	5.65	

June.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	4.1	4.3	4.8	4.2	4.6	4.3	4.2	4.7	4.8	5.1	4.9	4.7	4.56	30
1900	6.9	5.9	6.6	6.5	6.7	6.1	6.3	6.6	6.9	7.0	7.1	7.3	6.66	30
1901	7.8	8.1	8.0	7.4	8.0	7.3	7.5	8.3	7.8	8.0	7.6	7.9	7.81	30
1902	5.4	5.7	5.5	5.7	5.3	5.5	5.5	5.0	5.2	5.5	5.1	5.3	5.38	30
Mean	6.0	6.0	6.2	6.0	6.1	5.8	5.9	6.1	6.2	6.4	6.2	6.3	6.10	

July.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1899	6.3	6.7	6.5	6.6	7.0	7.0	6.0	6.1	6.6	6.8	6.5	6.0	6.50	23
1900	7.2	7.4	7.5	7.2	7.1	7.2	6.8	6.7	7.2	6.9	6.9	7.3	7.01	31
1901	7.9	8.1	8.1	8.5	8.2	8.3	7.7	7.9	8.0	7.5	8.1	8.0	8.00	31
1902	2.0	1.9	1.9	1.3	2.0	2.0	2.2	2.2	2.0	2.3	2.1	2.8	2.08	20
W. M.	6.2	6.4	6.5	6.3	6.4	6.4	5.9	6.1	6.2	6.2	6.3	6.4	6.28	

August.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1900	5.5	5.5	5.9	6.7	5.5	7.1	7.7	6.5	5.8	5.4	5.6	5.4	6.02	9
1901	8.1	7.9	8.1	7.7	7.6	8.1	7.8	8.4	8.3	8.2	8.6	8.3	8.00	31
W. M.	7.7	7.5	7.8	7.7	7.3	8.1	8.0	8.1	8.0	7.5	7.9	7.9	7.79	

September.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	5.9	5.8	6.0	5.5	5.6	5.8	5.6	5.9	6.2	4.6	5.4	4.8	5.54	12
1900	9.2	8.8	8.8	7.2	7.5	7.9	8.0	8.0	8.6	8.1	7.9	9.1	8.20	29
1901	6.7	7.8	7.7	7.1	6.4	6.2	6.2	5.9	6.7	7.3	7.5	7.5	6.86	30
W. M.	7.2	7.5	7.6	7.2	6.5	6.4	6.5	6.5	7.1	6.9	7.1	7.3	6.94	

October.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	6.2	6.4	6.5	7.0	7.0	6.6	7.2	7.1	6.6	5.9	5.7	5.3	6.46	31
1899	4.4	3.9	3.6	3.6	4.1	4.9	5.3	5.0	3.7	2.7	3.3	3.3	3.98	9
1900	6.8	7.1	6.6	7.8	7.8	7.7	7.4	7.1	7.1	7.3	7.2	6.7	7.22	31
1901	6.0	6.3	6.5	6.7	6.7	6.7	7.4	6.8	6.4	5.7	5.9	5.8	6.41	31
W. M.	6.2	6.4	6.3	6.8	6.9	6.8	7.2	6.9	6.4	6.0	5.9	5.7	6.46	

November.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	2.6	2.7	2.8	3.2	4.8	4.1	4.1	3.1	2.3	2.7	2.4	2.0	3.07	30
1899	2.3	3.3	2.8	3.4	3.5	3.6	3.4	3.1	2.4	2.9	2.9	2.1	2.97	30
1900	2.9	2.5	2.1	3.5	3.7	4.8	4.2	3.3	3.1	3.6	3.6	2.9	3.35	30
1901	2.8	2.8	3.3	4.3	4.4	4.3	4.2	4.0	3.0	3.0	2.9	3.2	3.52	30
Mean	2.6	2.8	2.7	3.5	4.1	4.2	4.0	3.4	2.7	3.0	2.9	2.5	3.23	

December.

Year	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.	Mean	Days
1898	1.0	1.0	0.9	1.7	1.7	2.1	1.5	1.0	0.6	1.1	1.4	1.2	1.27	31
1899	3.0	2.6	3.1	2.9	3.3	4.6	4.0	3.0	2.6	3.7	4.1	3.3	3.35	31
1900	2.9	2.4	1.7	1.9	2.6	2.5	2.2	1.9	2.1	2.6	2.3	2.7	2.32	31
1901	4.0	4.4	3.7	3.4	4.7	4.6	4.8	4.0	4.5	4.3	4.2	4.3	4.23	31
Mean	2.7	2.6	2.4	2.5	3.1	3.4	3.1	2.5	2.4	2.9	3.0	2.9	2.79	

The numbers in the last row for each month indicate the daily period of the amount of cloud. It will be seen, that the months October to March have a well-defined regular daily period with a maximum about 2 p. m. and a minimum in the night. The months April to September do not show any appreciable or regular period. Taking the means for the meteorological seasons, we get the following results:

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
Winter . . .	2.6	2.4	2.4	2.9	3.3	3.3	3.3	3.0	2.7	2.7	2.6	2.5
Spring	4.2	4.2	4.3	4.7	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.2
Summer . . .	6.7	6.4	6.7	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.8	6.9
Autumn . . .	5.4	5.5	5.6	5.7	5.8	5.8	5.7	5.5	5.3	5.3	5.3	5.3
Oct.—March	3.1	3.2	3.2	3.8	4.0	4.1	4.1	3.9	3.5	3.3	3.2	3.0
Apr.—Sept.	6.2	6.3	6.3	6.3	6.1	6.2	6.1	6.1	6.3	6.3	6.4	6.4
Year	4.7	4.7	4.8	5.0	5.1	5.1	5.1	5.0	4.9	4.8	4.8	4.7

By smoothing these numbers, we have.

	Minimum	Maximum	Range
Winter	4 a. m. 2.4	Noon 3.3	0.9
Spring	3 a. m. 4.2	10 a. m. 4.6	0.4
Summer. . . .	4 a. m. 6.6	10 p. m. 6.8	0.2
Autumn. . . .	Midt. 5.2	1 p. m. 5.8	0.6
Oct.—March .	Midt. 3.0	2 p. m. 4.1	1.1
Apr.—Sept. .	2 p. m. 6.1	10 p. m. 6.4	0.3
Year	Midt. 4.7	Noon 5.1	0.4

The winter months, with the relatively clear sky, have the greatest daily range, and the summer months, with the heavier amount of cloud, have a very small daily range. In all seasons the sky is more cloudy during the day than during the night. The maximum for the year falls at noon, the minimum at midnight.

AMOUNT OF CLOUD. ANNUAL PERIOD.

	January	February	March	April	May	June
1899	1.45	2.58	1.97	5.03	4.03	4.56
1900	2.90	5.77	3.01	4.77	6.36	6.66
1901	2.00	3.63	3.54	4.21	7.24	7.81
1902	1.22	2.83	3.81	4.57	4.99	5.38
Mean	1.89	3.70	3.09	4.67	5.65	6.10
Smoothed	2.57	3.10	3.64	4.52	5.52	6.05

	July	August	September	October	November	December
1898			[4.87]	6.46	3.07	1.33
1899	[6.90]	[7.91]	[9.10]	[3.51]	2.97	3.35
1900	7.01	[7.83]	[8.28]	7.22	3.35	2.32
1901	8.00	8 00	6.86	6.41	3.52	4.23
1902	[3.47]	[7.63]				
Mean	6.35	7.84	7.28	5.90	3.23	2.81
Smoothed	6.66	7.33	7.08	5.58	3.79	2.68

The figures in brackets have been computed from the combined observations made at the winter quarters and on board the Fram under way in the neighbourhood of the winter quarters.

The smoothed numbers give:

Mean annual Amount of Cloud 4.88
Minimum in January 2.57
Maximum in August 7.33
Annual Range 4.76

From November to April the amount of cloud is below the mean for the year, from May to October it is above. The winter months are remarkably clear, the cloudiness hardly reaching 3.

The following Table shows the number of clear days (c) (mean daily amount of cloud less than 2), and the number of overcast days (o) (amount of cloud upwards of 8). July to October completed by means of the observations on board ship.

	January		February		March		April		May		June	
	c	o	c	o	c	o	c	o	c	o	c	o
1899	20	0	14	0	20	1	7	6	11	5	10	10
1900	17	4	5	11	17	3	10	7	6	16	5	16
1901	21	1	11	4	11	4	9	5	4	17	1	18
1902	22	0	18	4	11	3	8	5	9	9	8	8
Mean	20.0	1.3	12.0	4.8	14.8	2.8	8.5	5.8	7.5	11.8	6.0	13.0

	July		August		September		October		November		December	
	c	o	c	o	c	o	c	o	c	o	c	o
1898					9	10	4	14	14	3	24	0
1899	1	14	1	18	0	24	17	6	17	3	13	2
1900	4	18	0	20	0	20	0	14	13	2	20	3
1901	2	19	1	19	3	11	4	13	14	3	8	6
1902	12	5										
Mean	4.8	14.0	0.7	19.0	3.0	16.3	6.3	11.7	14.5	2.8	16.2	2.8

The means for July, August, September and October are weighted means.

By smoothing the means, and counting the days with a mixed amount of cloud (2—8), we have the number of clear, mixed and overcast days.

	Clear	Mixed	Overcast	Total
January . .	17.1	11.4	2.5	31
February . .	14.7	9.9	3.4	28
March . .	12.5	14.4	4.1	31
April	9.8	13.7	6.5	30
May	7.4	13.0	10.6	31
June . . .	6.1	11.0	12.9	30
July	4.1	11.9	15.0	31
August . . .	2.3	11.6	17.1	31
September. .	3.1	11.1	15.8	30
October . . .	7.5	12.9	10.6	31
November . .	12.9	12.1	5.0	30
December .	16.7	11.9	2.4	31
Year	114.2	144.9	105.9	365

The number of *clear* days has a maximum in January and a minimum in August.

The number of *overcast* days has a maximum in August and a minimum in December.

The average of the *mixed* days is 12 per month.

The *year* has 114 clear days, 145 mixed days and 106 overcast days.

The winter is the clear season, the summer the cloudy season.

CLOUD-MOTION.

By counting the number of cases in which direction of the motion of the *lower* clouds (strato-cumulus, nimbus, cumulus, cumulo-nimbus and stratus) has been noted, and reducing the numbers to the 8 directions from which the clouds come, we obtain the following Table.

	N	NE	E	SE	S	SW	W	NW	Total
January	8.5	1.5	5	1.5	2	0.5	2	6	27
February	15	4.5	3	12.5	14	5	1	3	58
March	15.5	8	6	4	10	6	2	0.5	51
April	15	7	6	13	38.5	26	4.5	3	113
May	87	26.5	23	13.5	43	16.5	9	5.5	224
June	58.5	17.5	20	32.5	83.5	32.5	20.5	12	277
July	39.5	24.5	14	22	62	9	15	36	222
August	18	11.5	7	31.5	14.5	6.5	0	4	93
September	68	17.5	16.5	13	12	0	1	29	157
October	77	14.5	8.5	7	32.5	5.5	4	2	151
November	20	9	9	3	13	2.5	3.5	1	61
December	0	2	0.5	2.5	1	1	0	2	9
Year	421	144	118.5	156	326	111	62.5	104	1443

Cloud-motion from the north prevails in seven months, and from the south or south-east in three months. The least frequent motion is from north-west and from east. There are generally two maxima of frequency, one from the north and one from the south or south-east. On comparing the motion of the lower clouds with the wind, we have the following principal and secondary maxima.

	Highest Maximum		Lowest Maximum	
	Cloud	Wind	Cloud	Wind
January	N	N	E	S
February	N	N	S	S
March	N	N	S	S
April	SSW	N	N	S
May	N	N	S	S
June	S	S	N	N
July	S	N	N	S
August	SE	N	N	S
September	N	N	—	S
October	N	N	S	S
November	N	N	S	S
December	SE	N	NW	S

The prevalent direction of the lower clouds and of the wind is the same in 8 months. In the other 4 months, April, July, August and December, the prevalent direction of wind is the same as the most prevalent direction but one of the motion of the lower clouds.

The directions of the motion of the *higher* clouds (cirrus, cirrostratus) and the frequency with which they occur, are shown in the following Table in the same manner as above.

	N	NE	E	SE	S	SW	W	NW	Total
January	9	0	12	3	1	0	0	2	27
February	8	2	8	3	12	1	1	0	35
March	9.5	9	8	7	7.5	1.5	1	2.5	46
April	15	13	13.5	8.5	29.5	19.5	5	2	106
May	22	31.5	23	3	9	21.5	20.5	4.5	135
June	27.5	10	6	5.5	14.5	14	12.5	10	100
July	30	8	5	5	42	8	10	8	116
August	2	1	5	3	4	2	0	3	20
September	24	3	9	11	1	0	0	5	53
October	17	5	8	2	9	0	1	2	44
November	4.5	7.5	3	2	8	0.5	5.5	2	33
December	5	2	3	0	0	0	2	0	12
Winter	22	4	23	6	13	1	3	2	74
Spring	46.5	53.5	44.5	18.5	46	42.5	26.5	9	287
Summer	59.5	19	16	13.5	60.5	24	22.5	21	236
Autumn	45.5	15.5	20	15	18	0.5	6.5	9	130
Year	173.5	92	103.5	53	137.5	68	58.5	41	727

The higher clouds move in all directions.

The prevalent directions are

in winter from N and NE,

in spring from NE and SSW,

in summer from N and S,

in autumn from N.

The prevalent directions for the whole year are N and S. Motion from SE and NW is relatively rare.

PROBABILITY OF PRECIPITATION. DAILY PERIOD.

The fourth column under each alternate hour in the Tables on pp. 238—327 shows the kind of precipitation occurring at the moment of observation: rain (◉), snow (⁎), sleet (◉⁎), hail (△) and fog (≡). The following Table shows for each month, each observation-hour, and each year, the number of cases in which rain, snow, sleet or hail have been observed. To the right the column *Total* gives the sum of the 12 numbers for each year, and the column *Days* the numbers of days of observation. The last row but one gives the sum-total of numbers for each observation-hour, these sums, or total numbers of cases of precipitation observed, divided by the total number of observations made being the *Probability of precipitation*, expressed in the last row for each month as percentages, and headed p. c. The mean for the month stands in the same row under *Total*.

January.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	0	1	0	4	1	0	0	1	0	0	0	0	7	31
1900	6	5	3	0	3	1	3	3	5	3	2	1	35	31
1901	0	1	1	2	1	1	1	1	0	1	1	0	10	31
1902	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Sum	6	7	4	6	5	2	4	5	5	4	3	1	52	124
p. c.	4.8	5.7	3.2	4.8	4.0	1.6	3.2	4.0	4.0	3.2	2.4	0.8	3.5	

February.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	0	0	0	0	0	0	0	0	1	1	1	0	3	28
1900	7	5	2	4	0	3	3	4	3	4	2	5	42	28
1901	4	3	0	1	1	4	2	3	3	3	4	3	31	28
1902	2	3	5	3	3	4	4	4	3	2	1	2	36	28
Sum	13	11	7	8	4	11	9	11	10	10	8	10	112	112
p. c.	11.6	9.9	6.3	7.1	3.6	9.9	8.0	9.9	8.9	8.9	7.1	8.9	8.3	

March.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	1	0	0	0	0	1	0	1	0	1	2	2	10	31
1900	1	2	1	1	1	2	0	1	2	2	1	1	13	31
1901	2	1	1	2	1	1	3	2	5	4	5	4	31	31
1902	1	0	1	1	1	3	0	0	2	2	1	2	14	31
Sum	5	3	3	4	3	7	3	4	9	9	9	9	68	124
p. c.	4.0	2.4	2.4	3.2	2.4	5.7	2.4	3.2	7.3	7.3	7.3	7.3	4.6	

April.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	4	5	4	6	3	6	5	3	6	5	6	7	60	30
1900	5	5	5	7	6	4	6	6	6	6	4	2	62	30
1901	4	4	0	2	2	0	2	3	2	4	5	3	31	30
1902	3	4	3	7	6	1	3	0	1	4	6	5	43	30
Sum	16	18	12	22	17	11	16	12	15	19	21	17	196	120
p. c.	13.3	15.0	10.0	18.3	14.2	9.3	13.3	10.0	12.5	15.8	17.5	14.2	13.6	

May.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	2	1	2	3	2	3	2	2	3	2	4	2	28	31
1900	7	5	7	9	9	8	10	6	9	8	6	6	90	31
1901	7	7	9	10	11	8	9	9	9	8	6	8	101	31
1902	4	5	5	4	5	5	6	8	6	5	4	5	62	31
Sum	20	18	23	26	27	24	27	25	27	23	20	21	281	124
p. c.	16.1	14.5	18.5	20.9	21.8	19.3	21.8	20.2	21.8	18.5	16.1	17.0	18.8	

June.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	2	3	3	3	2	3	5	4	4	4	3	2	38	30
1900	6	3	3	7	6	7	9	9	7	6	7	8	78	30
1901	6	7	8	6	5	6	7	9	3	6	5	6	74	30
1902	4	4	3	0	3	0	0	1	2	3	2	2	24	30
Sum	18	17	17	16	16	16	21	23	16	19	17	18	214	120
p. c.	15.0	14.2	14.2	13.3	13.3	13.3	17.5	19.2	13.3	15.8	14.2	15.0	14.9	

July.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1899	3	4	4	2	4	4	1	3	3	4	3	3	38	23
1900	6	8	6	10	8	7	3	5	5	5	3	3	69	31
1901	5	7	8	7	6	5	6	6	6	6	4	4	70	31
1902	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Sum	14	19	18	19	18	16	10	14	14	15	10	10	177	106
p. c.	13.2	18.0	17.0	18.0	17.0	15.1	9.9	13.2	13.2	14.1	9.9	9.9	13.9	

August.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1900	1	1	0	0	0	0	0	1	1	0	1	1	6	9
1901	4	5	5	7	6	4	4	5	4	5	2	3	54	31
Sum	5	6	5	7	6	4	4	6	5	5	3	4	60	40
p. c.	12.5	15.0	12.5	17.5	15.0	10.0	10.0	15.0	12.5	12.5	7.5	10.0	12.5	

September.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1898	1	1	0	0	2	0	1	1	1	0	0	0	7	12
1900	6	5	3	4	2	6	7	4	5	4	3	5	54	20
1901	3	5	7	6	4	4	5	6	9	6	5	4	64	30
Sum	10	11	10	10	8	10	13	11	15	10	8	9	125	62
p. c.	16.1	17.8	16.1	16.1	12.9	16.1	21.0	17.8	24.2	16.1	12.9	14.5	16.8	

October.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1898	7	8	4	7	7	7	5	5	4	5	5	7	71	31
1899	2	1	1	1	1	1	2	1	1	1	0	2	14	9
1900	6	3	7	8	11	11	5	5	7	8	10	7	88	31
1901	5	3	2	5	2	4	4	4	4	8	4	5	50	31
Sum	20	15	14	21	21	23	16	15	16	22	19	21	223	102
p. c.	19.6	14.7	13.7	20.6	20.6	22.5	15.7	14.7	15.7	21.6	18.6	20.6	18.2	

November.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1898	1	0	1	3	5	2	1	2	2	3	3	1	24	30
1899	0	2	3	3	2	1	1	2	1	3	3	2	23	30
1900	1	0	2	1	0	1	0	1	3	3	5	1	18	30
1901	1	3	4	5	3	2	1	2	2	3	0	3	29	30
Sum	3	5	10	12	10	6	3	7	8	12	11	7	94	120
p. c.	2.5	4.2	8.3	10.0	8.3	5.0	2.5	5.8	6.7	10.0	9.3	5.8	6.5	

December.

	2h	4h	6h	8h	10h	N	2h	4h	6h	8h	10h	M	Total	Days
1898	0	0	0	0	1	1	0	0	0	0	0	0	2	31
1899	4	3	4	3	2	2	2	2	2	2	3	4	33	31
1900	0	2	1	1	1	2	2	1	2	0	3	1	16	31
1901	4	5	5	4	4	3	4	5	7	4	4	3	52	31
Sum	8	10	10	8	8	8	8	8	11	6	10	8	103	124
p. c.	6.5	8.1	8.1	6.5	6.5	6.5	6.5	6.5	8.9	4.8	8.1	6.5	6.9	

As they stand, the numbers indicating the probability of precipitation (p. c.) for each even hour in the various months, do not show any regular daily period. The period of 4 years' observations seems to be too short to obtain a definite result for a single month. By taking the means for the seasons and for the year, we seem to be better off, as the following Table shows.

	2h	4h	6h	8h	10h	Noon	2h	4h	6h	8h	10h	Midt.
Winter	7.6	**7.8**	*5.8*	6.1	4.7	**6.0**	5.9	6.8	7.3	5.6	5.9	*5.4*
Spring	11.1	10.6	*10.3*	**14.1**	12.8	11.4	12.5	*11.1*	13.6	**13.9**	13.6	12.8
Summer	13.6	15.7	14.6	**16.3**	15.1	12.8	*12.5*	**15.8**	13.0	14.1	10.5	*11.6*
Autumn	12.7	*12.2*	12.7	**15.6**	13.9	14.5	13.1	*12.8*	15.5	**15.9**	13.6	13.6
Year	11.3	**11.6**	10.9	**13.0**	11.6	11.2	*11.0*	11.6	**12.4**	12.4	10.9	*10.9*
Smoothed	11.2	11.3	11.6	**12.1**	11.9	11.3	*11.2*	11.6	**12.2**	12.0	11.3	*11.0*

The seasons show a double diurnal wave, maxima in the forenoon and evening, and minima at midnight or in the early morning hours, and a few hours after noon. The means for the year, particularly the smoothed means, indicate maxima at 8 a. m. and 6 p. m., and minima at midnight and at 1 p. m. The range for the year is 1.2 p. c.

PROBABILITY OF PRECIPITATION. ANNUAL PERIOD.

The following Table shows in percentage the mean annual values of the probability of precipitation for each month extracted from the Table on pp. 336—338, and the monthly values smoothed.

	January	February	March	April	May	June
	3.5	8.3	4.6	13.6	18.8	14.9
Smoothed	5.5	6.2	7.8	12.6	16.5	15.6

	July	August	September	October	November	December
	13.9	12.5	16.8	18.2	6.5	6.9
Smoothed	13.9	13.9	16.0	14.9	9.5	6.0

Annual Mean	11.56	p. c.	
Minima	5.5	—	January
—	13.9	—	July
Maxima	16.5	—	May
—	16.0	—	September
Range	11.0	—	

Precipitation is least frequent in winter, most frequent in spring and autumn.

NUMBER OF DAYS WITH PRECIPITATION.

The following Tables show the number of days on which rain, snow, or both rain and snow, have been observed.

	January	February	March	April	May	June		
	snow only	snow only	snow only	snow only	snow only	◍	*	◍ *
1899	4	3	5	12	6	1	4	5
1900	9	15	7	12	16	3	13	14
1901	2	10	8	11	19	7	17	19
1902	0	9	8	12	14	5	8	12
Total . .	15	37	28	47	55	16	49	50
Mean . .	3.75	9.25	7.00	11.75	13.75	4.00	10.50	12.50

	July			August			September			October			Nov.	Dec.
	◍	*	◍ *	◍	*	◍ *	◍	*	◍ *	◍	*	◍ *	snow only	snow only
1898							0	[4]	[4]		15	15	7	1
1899	8	5	9								[3]	[3]	6	10
1900	16	9	17	[3]	[0]	[3]	0	[13]	[13]	1	21	21	7	7
1901	17	7	19	13	9	18	0	14	14		13	13	11	15
1902	0	0	0											
Total	41	21	45	[16]	[9]	21	0	31	31	1	52	52	31	33
Mean	10.25	5.25	11.25	[10.5]	[7.0]	[12.0]	0	[15.0]	[15.0]	[0.25]	[17.2]	[17.2]	7.75	8.25

The numbers for the incomplete months are in brackets. The means are weighted means, weight being given in proportion to the number of days of observations in each month.

Snow fell in every month. October and March have the most days with snow, January and July least.

Rain has fallen only in June, July, August, and once in October. July seems to have the most days with rain, namely about 10.

	First Rain	Last Rain
1899	June 28	[July 24]
1900	June 2	Oct. 13
1901	June 14	Aug. 31
1902	June 10	

Hail is very rare. In 1899 it was observed on June 26th and in 1901 on August 12th.

The total number for the whole year of

Days with rain is 25

Days with snow is 116

DURATION OF PRECIPITATION IN ONE DAY OF PRECIPITATION.

The following Table has been computed by KÖPPENS Method[1]. For a certain period (e. g. a month), let

n be the total number of observations made
r - - — — - — of precipitation
N - - — — - hours in the period
d - - the number of days with precipitation (rain or snow).

We then have

$\frac{r}{n}$ the probability of precipitation,

$\frac{r}{n}N$ the total duration of precipitation in hours,

$\frac{r}{n}\frac{N}{d}$ the average duration (in hours) of precipitation in a day of precipitation.

	r	n	$\frac{r}{n}$	$N = 2n$	$\frac{r}{n}N = 2r$	d	$\frac{r}{n} \cdot \frac{N}{d}$
			p. c.				
January	52	1488	3.5	2986	104	15	6.93
February	112	1344	8.3	2688	224	37	6.05
March	68	1488	4.6	2976	136	28	4.86
April	196	1440	13.6	2880	392	47	8.34
May	281	1488	18.8	2976	562	55	10.22
June	214	1440	14.9	2880	428	50	8.56
July	177	1272	13.9	2544	354	45	7.87
August	60	480	12.5	960	120	21	5.71
September	125	744	16.8	1488	250	31	8.06
October	223	1224	18.2	2448	446	51	8.75
November	94	1440	6.5	2880	188	31	6.06
December	103	1488	6.9	2976	206	33	6.25
Year	1705	15336	11.12	30672	3410	444	7.68

The circumstance that the observations are bi-hourly or that we have 12 observations in 24 hours, makes N equall to $2n$ and $\frac{r}{n}N$ to $2r$. For the months November to June, we have complete bi-hourly observations for 4 years, and the value of d, or the mean number of days

[1] Oesterreichische Zeitschrift für Meteorologie f. 1880, p. 362 and Meteorologische Zeitschrift f. 1885, p. 10.

with precipitation for the year d_0, can be found by dividing d by 4. For the incomplete months, July to October, the mean value of d for 4 years may be computed in the following manner:

Calling the number of hours with precipitation in one day of precipitation h, we have

$$h = \frac{r}{n}\frac{N}{d}, \quad \text{whence} \quad d = \frac{r}{n}\frac{N}{h}.$$

Introducing, instead of the given shorter period of observations the normal value N_0 of the number of hours in each month, we have, for 4 years,

$$d_4 = \frac{r}{n}\frac{N_0}{h} = \frac{\frac{r}{n}N_0}{\frac{r}{n}\frac{N}{d}} = d\frac{N_0}{N}$$

	July	August	September	October
Days of observation . .	106	40	62	102
N	2544	960	1488	2448
N_0	2976	2976	2880	2976
$\frac{N_0}{N}$	1.17	3.10	1.93	1.22
d	45	21	31	51
d_4	52.65	65.10	59.83	62.22
for one year d_0	13.16	16.52	14.96	15.56

By employing these numbers, we get the following Table, in which D is the number of days with precipitation, and H the hours of precipitation in on day of precipitation, *Comp.* indicating computed, and *Sm.* smoothed.

	D		H	
	Comp.	Sm.	Comp.	Sm.
January . . .	3.75	6.23	6.93	6.54
February . .	9.25	7.31	6.05	5.97
March . . .	7.00	8.75	4.86	6.03
April	11.75	11.06	8.34	7.94
May	13.75	12.94	10.22	9.34
June	12.50	12.98	8.56	8.80
July	13.16	13.59	7.87	7.50
August . . .	15.52	14.79	5.71	6.84
September . .	14.96	15.27	8.06	7.65
October . . .	15.65	13.50	8.75	7.91
November . .	7.75	9.85	6.06	6.78
December . .	8.25	7.00	6.25	6.37
Year	133.29	133.27	7.31	7.31

The number of days with precipitation is greatest in September (15) and least in January (6); and it is greater in summer than in winter. The year has 133 days with precipitation or 36.5 per cent. Each third day has precipitation.

The number of hours of precipitation in one day of precipitation has a maximum in May (9—10) and another maximum in October (8). It has one minimum in February or March (6) and a secondary minimum in August (6—7). The mean for the year is 7 to 8 days.

THE AMOUNT OF PRECIPITATION.

It was not possible to measure the amount of precipitation in any degree satisfactorily. The observation-journal contains only the following remarks:

1898	Sept.	20	8 a. m.	0.0	A little snow between 6 and 7 a. m.
		21 to 23	—	0.0	
		25	—	0.1	✱ after midt. 24—25.
		29	—	0.0	Strong hoar-frost next midnight.
	Oct.	2	—	0.0	
		3	—	2.5	
		4	—	0.6	
		5	—	5.5	
		6	—	0.0	
		9	—	0.0	
		11	—	4.4	
		12	—	2.0	
		14	—	0.0	
		15	—	7.6	
		16	—	3.1	
		19	—	0.0	
		20	—	0.8	
		24	—	0.0	
		25	—	0.2	
		26	—	0.0	
	Nov.	6 to 8	—	0.0	
		18	—	2.0	
		22	—	0.9	
		23	—	0.1	
		24	—	0.3	
		29	—	0.3	
	Dec.	24	—	0.4	
		30	—	0.2	
1899	Jan.	6	—	0.1	
		19	—	0.2	
		22	—	0.3	
	Feb.	1	—	0.3	About 5 p. m. NW 4 during 25 minutes.
		4	—	0.1	
		16	—	0.0	
		26	—	0.1 ?	
	Mar.	11	—	0.0	
		21	—	0.3	
		22	—	0.0	8 and 10 a. m. rapid cloud-motion from NE.
	Apr.	1	—	0.5	
		5	—	0.7	
		6	—	0.5	
		7	—	1.2	
		8	—	1.5	

1899	Apr.	10—	8 a. m.	0.7	
		11	—	2.5	
		12	—	1.4	
		14	—	0.3	
		16	—	1.6	
		17	—	3.9	
		18	—	0.3	
		26	—	0.0	
		29	—	0.5	
		30	—	0.3	
	May	2	—	0.0	
		3	—	0.3	
		13	—	10.6	
		14	—	4.8	
		20	—	0.2	
		21	—	0.1	The 28th, 8 a. m., all instruments covered with hoar-frost.
	June	19	—	0	
		20	Midt.	1.8	Midt. 20—21.
		21	—	3.5	Midt. 21—22.
		23	8.30 a. m.	5.5	The snowfall ceased at 8.30 a. m., and the precipitation since last measuring was measured.
		24	—	0	
		26	—	0	
		28	—	0.4	
		28	8 p. m.	0.4	
	July	11	—	0 ?	The gauge taken in the 13th.
	Dec.	27	Noon	3.4	The total amount of precipitation from the 24th to the moment of measuring.
1900	Jan.	4	Noon	3.7	Total amount of prec. from the 27th of Dec. to the moment of measuring.
		6	8 a. m.	0	Item 7th, 12th, 13th.
		29	—	2.7	The precip. from the 27th incl. to the moment of measuring.
		30	—	0	
	Feb.	2	—	0	Item 4th, 6th, 12th. The 4th the snow gauge blown down.
		18	Midt.	0.3 ?	Midt. 18—19.
		20	—	2.3	Midt. 20—21. Probably the prec. from the 19th, morning to the moment of measuring.
		22 & 23	8 a. m.	0	
	Mar.	1	—	0	
		7	—	2.9	
		8	—	0	Item 9th and 18th.
		25	Midt.	1.5	Midt. 25—26.
		26	8 a. m.	0	
	Apr.	5	Midt.	0.3 ?	Midt. 5—6.
		9	—	8.2	Midt. 9—10.
		10	8 a. m.	0	Item 12th and 16th.
		17	Midt.	0.5	Midt. 17—18.
		20	8 a. m.	1.1	Probably the precipitation from midt. 18—19 to measuring.
		24	—	2.2	
		25	—	1.5	
		26	—	0	

1900	May	1	Midt.	0.2	Midt. 1—2, probably the amount since April 30th, evening.
		4 & 5	8 a. m.	0	
		7	Midt.	0.1	Midt. 7—8.
		8	8 a. m.	0	Item 9th, 10th, 14th, and 15th.
		17	—	1.0	Probably the amount since 15th, 8 p. m.
		19	—	1.3	Probably the amount since the last measuring.
		23	Midt.	3.0	
	June	2	—	1.9	Midt. 2—3. Probably the amount since evening, the 29th May.
		3	—	2.9	Midt. 3—4.
		5 & 6	8 a. m.	0	
		14	—	3.8	Probably since midt. 12—13.
		15	4 p. m.	2.0	Probably since noon, the 14th.
		16	Midt.	2.6	Midt. 16—17, probably since midt. 15—16.
		21	—	8.5	Midt. 21—22, probably since midt. 20—21.
		22	10 p. m.	0.5	Probably since 2 a. m.
	July	3	8 a. m.	0	
		6	—	0.8	
		7	—	9.5	
		8	—	0	
		11	—	13.7	Probably since 10th, 2 a. m.
		12	—	0.2	
		13	—	0	
		16	—	2.1	Probably since 14th, 10 a. m.
		20	—	0.7	Probably since 17th, 8 p. m.
		27 & 28	—	0	
		30	—	4.2	
	Aug.	2	—	5.6	Probably since midt. 30—31 July.
		6	—	0	
	Sept.	20 to 29	—	0	
	Oct.	1	8 a. m.	0	
		2	—	0.6	
		3 to 5	—	0	Item 11th, 14th, 16th, 18th, 22nd to 26th, and 28th.
		31	—	0.3	Probably since 29th, 6 p. m.
	Nov.	4 to 6	—	0 ?	
		25	—	0.5	
	Dec.	3	—	0.5	Probably since Nov. 29th, 4 p. m.
		13	—	0.4	Probably since 11th, 10 p. m.
		16	—	0 ?	
1901	Jan.	4 & 5	—	0	Item 25th.
	Feb.	3	—	0.4	
		10	—	0.9	
		11	10 a. m.	0.7	
		15	—	2.0	
		18 & 26	—	0	
	Mar.	1	8 a. m.	0.3	
		7 & 8	—	0	Item 24th.
		26	6 p. m.	0.8	Since?
		30	8 a. m.	0.4	Probably since last measuring.
	April	1	—	0	Item 3rd, 6th and 7th.
		11	10 a. m.	0.2	
		17 & 18	—	0	Item 27th and 29th.
	May	4	—	0	Item 7th to 10th, 12th to 16th, 19th to 22nd, 24th, and 25th.

1901	May	28	10 a. m.	0.8	Probably since 26th, 6 a. m.
		29	8 a. m.	0	
	June	1 to 3	—	0	Item 5th.
		7	10 a. m.	0.6	Probably since 6th, 4 a. m.
		11 to 13	8 a. m.	0	Item 15th to 23rd, 27th and 30th.
	July	3	—	0	
		6	—	1.4	Probably since 4th, 2 p. m.
		8	—	0	
		14	—	0.3	
		18	10 a. m.	0.4	Probably since 16th, 4 a. m.
		20 & 22	—	0	
		24	—	9.0	Probably since 23rd, 6 a. m.
		28	—	3.5	Probably since last measuring.
		29 & 30	—	0	
	Aug.	5	—	2.0	Probably since 2nd, 4 a. m.
		6 & 8	—	0	Item 11th to 13th, 16th to 18th, 21st to 23d, and 27th.
	Sept.	3 & 4	—	0	Item 8th, 14th to 17th, and 21st.
		26	Noon	4.0	Probably since 24th, 8 a. m.
		27	—	0	
		30	10 a. m.	1.4	Probably since 29th, 8 a. m.
	Oct.	1	—	0	
		6	—	2.7	Probably since 4th, 8 a. m.
		15	—	1.3	Probably since 12th, 6 p. m.
		18	—	0.5	Probably since 16th, 8 p. m.
		30	Noon	2.0	Probably since midt. 27—28.
		31	—	0.0	
	Nov.	3	—	3.5	
		4	10 a. m.	1.5	
		6 & 7	—	0	Item 12th to 15th.
		18	8 a. m.	0.3	
		19	—	0	
		27	—	1.4	
	Dec.	5	Noon	1.0	
		7	10 a. m.	1.0	
		8	8 a. m.	0.6	
		9	10 a. m.	0.3	
		10	—	0.2	
		11	—	0	
		15	Noon	2.2 ?	
		17	8 a. m.	0.4	Probably since 15th, 6 p. m.
		21	—	0	
		24	10 a. m.	1.0 ?	
		25 & 28	—	0	
		29	—	1.0	
1902	Jan.	16	8 a. m.	0.7 ?	
	Feb.	2	10 a. m.	0.4 ?	
		9	—	0	
		11	8 a. m.	0.0	
		12 & 13	—	0	Item 16th.
		22	8 p. m.	1.6	Probably since midt. 21—22.
		23	10 p. m.	0.4	
	Mar.	4	10 a. m.	0.9	Probably since 2nd, 8 p. m.
		9	8 a. m.	1.7	
		15	—	0	
		18	10 a. m.	1.0	Probably too high, snow having drifted into the gauge.

1902	Mar.	21	Noon	0 ?	Item 24th, 8 p. m.
		27	8 a. m.	0.9	
		31	Noon	0	
	April	6	—	1.2	
		7 & 8	—	0	Item 11th.
		22	10 a. m.	0.7	
		23	—	0.2	
		24	—	1.0	
		25	—	0	
		29	8 a. m.	1.3	
		30	—	0	
	May	1 & 2	—	0	Item 5th, 6th, and 8th to 10th.
		13	—	1.6	Probably since 12th, 2 a. m.
		14	—	0.1	
		15 & 16	—	0	Item 19th, 20th and 29th.
		31	—	0.0	
	June	1 to 3	—	0	Item 6th, 9th, 11th, and 15th to 17th.
		22	—	0.0	
		23	—	0.0	
		24	—	0	

Capt. Sverdrup says that the amount of fallen snow was so small that patches of bare earth very often occurred, greatly impeding sledge-travelling.

OBSERVATIONS OF AURORA BOREALIS.

1898	October 12.	8 p. m.	Au. NW-SE
	November 21.	2 a. m.	Streamer in NE. Au. N-S
	December 5.	8 p. m.	Au. in NE.
	— 7.	5-6 p. m.	Slight Au. in NE.
	— „	8 p. m.	Strong Au. Arch and banded.
	— 9.	7 a. m.	Aurora.
	— 11.	2 p. m.	Au. banded and moving rapidly from NE-SW.
	— „	8 p. m.	Au. from SE-NW through the Zenith. Flasing.
	— 12.	2 a. m.	Slight Au. in NE. Banded in N.
	— „	8 a. m.	Au. through the Zenith, from SE-NW.
	— „	10 p. m.	Slight Au. NW-SE towards the Zenith.
	— 14.	6 p. m.	Streamer from NNW towards the Zenith.
	— „		Another Band in W.
	— „	8 p. m.	Slight Au. from SE-NW.
	— „	10 p. m.	Slight Au. in NNW towards the Zenith.
1899	January 6.	6 p. m.	Coloured Au. from E-W.
	— 13.	4 p. m.	Au. on the horizon in W.
	— 14.	8 p. m.	Au. Sheaf. SE-NW. Duration 40 m.
	— 15.	10 p. m.	Slight Au. in SE.
	— 19.	6 p. m.	Streamers in NE-SW.
	February 10.	12 p. m.	Slight Arch NE-SW.
	March 2.	12 p. m.	Slight Arch E-NW.
	— 6.	2 a. m.	Arch in SE-NW, low.
	December 21.	4 p. m.	Band NW-SE.
1900	February 27.	6 a. m.	Cloudlike patches of Au. E-WS and up near Zenith.
	September 23.	2 a. m.	Aurora.
	December 7.	2 a. m.	Slight Au.
1901	March 5.	10 p. m.	Slight Au. in SE.
	December 1.	4 p. m.	Slight Arch. ENE-WNW, c. 45° high.
	— 20.	2 p. m.	Aurora.
1902	January 25.	5 p. m.	Strong Band.
	— „	6 p. m.	Slight Band from SE-NW c. 20° from Zenith.
	March 6.	12 p. m.	Aurora.

OPTICAL PHENOMENA.

1898	October	28.	10 p. m.	Lunar Corona.
	—	29.	8 p. m.	Lunar Corona and Halo.
	—	31.	2 a. m.	Lunar Halo.
	November	5.	4 p. m.	Halo over the Moon.
	—	"	7 p. m.	Corona over the Moon.
	—	7.	6 a. m.	Lunar Halo.
	—	25.	6 p. m.	Lunar Halo.
	—	26.	2-8 a. m.	Lunar Halo.
	—	27.	10 p. m.	Lunar Halo.
	—	29.	2 a. m.	Lunar Halo.
	—	"	8 a. m.	Lunar Halo. Mock Moons.
	—	30.	2 a. m.	Lunar Halo 35°
	December	3.	2 a. m.	Lunar Corona.
	—	22.	8 p. m.	Slight Lunar Halo.
	—	23.	4 a. m.	Indistinct Lunar Halo
	—	"	2 p. m.	Lunar Halo.
	—	24.	8 a. m.	Lunar Halo.
	—	25.	12 p. m.	Slight Lunar Halo.
	—	26.	3 a. m.	Slight Lunar Halo.
	—	"	8 a. m.	Lunar Halo.
	—	27.	8 a. m.	Lunar Halo. Mock Moons.
	—	"	10 a. m.	3 Mock Moons
	—	"	2 p. m.	Lunar Halo. 3 Mock Moons.
	—	"	12 p. m.	Lunar Halo.
	—	28.	10 a. m.	Slight Lunar Halo.
	—	"	2 p. m.	Slight Lunar Halo.
	—	"	8 p. m.	Slight Lunar Corona.
	—	"	10 p. m.	Lunar Halo.
	—	"	12 p. m.	Lunar Halo.
	—	29.	2 a. m.	Slight Lunar Halo.
	—	"	4 a. m.	Lunar Corona.
	—	"	6 a. m.	Lunar Corona.
	—	"	6 p. m.	Lunar Corona.
	—	"	8 p. m.	Lunar Corona.
	—	"	10 p. m.	Lunar Corona.
	—	"	12 p. m.	Lunar Corona.
	—	30.	10 p. m.	Slight Lunar Halo. Mock Moons.
1899	January	17.	6 p. m.	Lunar Halo and outer Moons.
	—	"	8 p. m.	Lunar Halo.
	—	"	10 p. m.	Lunar Halo.
	—	"	12 p. m.	Lunar Halo.
	—	19.	2 p. m	Lunar Halo.
	—	21.	12 p. m.	Lunar Halo.
	—	22.	2 a. m.	Lunar Halo.

1899	January	22.	4 a. m.	Lunar Halo.
	—	"	6 a. m.	Slight Lunar Halo.
	—	"	8 p. m.	Slight Lunar Halo.
	—	"	10 p. m.	Lunar Halo.
	—	"	12 p. m.	Lunar Halo.
	—	23.	2 a. m.	Lunar Halo.
	—	24.	2 a. m.	Lunar Halo.
	—	"	2 p. m.	Slight Lunar Halo. Mock Moon.
	—	"	6 p. m.	Slight Lunar Halo. 2 Mock Moons.
	—	26.	6 a. m.	Lunar Halo. 2 Mock Moons.
	—	"	8 a. m.	Lunar Corona.
	February	14.	4 p. m.	Lunar Halo.
	—	15.	6 p. m.	Lunar Corona.
	—	24.	8 p. m.	Lunar Corona.
	—	"	10 p. m.	Lunar Corona.
	—	"	12 p. m.	Lunar Corona.
	March	11.	Noon.	Solar Halos. 3 Mock Suns.
	—	"	4 p. m.	Mock Sun in horizon.
	—	23.	2 a. m.	Lunar Halo.
	—	29.	10 a. m.	Solar Halo. 3 Mock Suns.
	—	"	2 p. m.	Solar Halo. 3 Mock Suns.
	—	31.	10 a. m.	Solar Halo.
	April	6.	10 a. m.	Solar Halo. Mock Sun.
	—	18.	8 p. m.	Solar Halo.
	—	21.	8 p. m.	Solar Halo. Mock Sun above Sun.
	May	4.	2 a. m.	Mock Sun.
	—	23.	10 a. m.	Solar Halo. 3 Mock Suns, outer Halo.
	June	30.	6 p. m.	Solar Halo. 2 Mock Suns.
	November	21.	12 p. m.	Lunar Halo.
	December	20.	10 a. m.	Lunar Halo. 2 Mock Moons.
	—	"	12 p. m.	Lunar Halo.
	—	31.	2 a. m.	Lunar Halo.
	—	"	8 a. m.	Lunar Halo.
1900	January	13.	12 p. m.	Lunar Halo.
	—	14.	4 a. m.	Lunar Halo.
	February	12.	4 a. m.	Lunar Halo.
	March	7.	10 p. m.	Lunar Halo.
	—	14.	12 p. m.	Slight Lunar Halo. 3 Mock Moons.
	April	27.	6 p. m.	Mock Sun.
	September	16.	6 p. m.	2 Mock Suns.
	October	6.	2 p. m.	2 Mock Suns.
	—	9.	2 p. m.	Mock Sun.
	—	"	12 p. m.	Lunar Halo. Mock Moons.
	—	10.	6 p. m.	2 Mock Moons.
	November	11.	6 a. m.	Lunar Halo.
1901	January	2.	8 p. m.	Lunar Halo.
	—	5.	6 p. m.	Mock Moons.
	—	"	10 p. m.	Lunar Halo.
	—	30.	4 p. m.	Lunar Halo.
	—	"	6 p. m.	Lunar Halo.
	—	31.	6 p. m.	2 Mock Moons.
	February	5.	12 p. m.	Lunar Halo. Mock Sun.
	—	28.	8 p. m.	Lunar Halo.
	March	3.	10 p. m.	Mock Moons.

1901	March	5.	10 p. m.	Lunar Halo.
	—	19.	10 p. m.	2 slight Mock Suns
	—	"	2 p. m.	Solar Halo. 3 Mock Suns
	—	"	4 p. m.	Slight Solar Halo. 3 Mock Suns. Column.
	—	23.	4 p. m.	Slight Solar Halo.
	April	24.	4 p. m.	Slight Solar Halo. Mock Suns.
	—	26.	10 a. m.	Solar Halo. 4 Mock Suns.
	October	20.	10 a. m.	Mock Sun.
	November	21.	10 p. m.	Lunar Halo.
	—	26.	6 p. m.	Mock Moons
	—	28.	6 p. m.	2 Mock Moons.
	—	"	8 p. m.	Slight Mock Moon.
	—	29.	8 a. m.	Slight Mock Moon.
	December	2.	6 a. m.	Slight Lunar Halo.
	—	4.	6 a. m.	Slight Mock Moon.
	—	18.	8 p. m.	Slight Lunar Halo.
	—	20.	4 p. m.	Mock Moons.
	—	21.	4 p. m.	Slight Lunar Halo.
1902	January	11.	10 p. m.	Lunar Halo.
	—	17.	2 p. m.	Lunar Halo.
	—	19.	4 p. m.	Lunar Halo.
	—	"	6 p. m.	Lunar Halo.
	—	"	8 p. m.	Lunar Halo.
	—	"	10 p. m.	Lunar Halo.
	—	21.	8 p. m.	Cirrus-Belt. Rad. SSE.
	—	22.	6 a. m.	Slight Lunar Halo.
	—	"	8 a. m.	Mock Moon.
	—	"	2 p. m.	2 Mock Moons.
	—	"	4 p. m.	Lunar Halo. 3 Mock Moons.
	—	"	8 p. m.	2 Lunar Halo. 2 Mock Moons.
	—	"	10 p. m.	Lunar Halo.
	—	23.	4 a. m.	Slight Lunar Halo.
	February	13.	12 p. m.	Lunar Halo.
	—	21.	4 a. m.	2 Mook Moons.
	March	3.	2 p. m.	Slight Mock Sun.
	—	"	4 p. m.	Cross through Sun.
	—	7.	2 p. m.	2 Mock Suns.
	—	8.	2 p. m.	2 Mock Suns.
	—	17.	4 p. m.	2 slight Mock Suns.
	—	28.	2 p. m.	2 Mock Suns.
	—	"	4 p. m.	Solar Halo. 3 Mock Suns.
	—	30.	6 p. m.	2 slight Mock Suns.
	April	25.	8 p. m.	Mock Sun.
	May	3.	10 p. m.	Solar Halo. 2 Mock Suns.
	—	15.	8 p. m.	Mock Sun.

PART II.

OBSERVATIONS ON BOARD THE FRAM UNDER WAY.

The meteorological observations made on board the Fram when she was under way, comprised barometer, dry and wet thermometer, direction and velocity of the wind, amount, form and drift of clouds, precipitation, state of the sea and direction of swell or sea, and temperature of the sea-surface. The instruments used were

The *marine barometer* adie No. C. 764, the same that was on board the Fram from 1893 to 1896. This barometer was found to require a special reduction for the temperature besides the ordinary tabular reduction.[1] It was compared with the standard barometer of the Norwegian Meteorological Institute in Kristiania in 1897, and in 1902 and 1903. The reductions to 0° C., and to the true barometric height, were

in 1897:	$+ 0.14 + (\text{Tab. Red. t. } 0°) - 0.017\ \text{t.} + 0.0007\ (760-\text{b})$ mm.
„ 1902—3:	$+ 0.17 + (\text{Tab. Red. t. } 0°) - 0.017\ \text{t.} + 0.0079\ (760-\text{b})$ „
Mean	$+ 0.155 + (\text{Tab. Red. t. } 0°) - 0.017\ \text{t.} + 0.0043.\ (760-\text{b}).$ „

The barometer was suspended in the fore cabin with its cistern 2.8 metres above the sea-surface. The reduction to sea-level is 0.285 mm.

The gravity correction was computed by the formula b (—0.00264. cos 2φ). The observations given in the following Table or Journal have been reduced to 0° C., to the true height of the mercury, to sea-level, and to standard gravity, by the formula

$$+ 0.44 + (\text{Tab. Red. t. } 0°) - 0.017\ \text{t.} + 0.0043 (760-\text{b}) + \text{gravity correction.}$$

The thermometers used had been compared with standards in 1898. None of them came back. They were

[1] The Norwegian North Polar Expedition 1893—1896. Scientific Results. Edited by Fridtjof Nansen. Vol. VI. pp. 7—9.

Sling-thermometers Fuess No. 1194 and No. 1195 with whirling mechanism. They were destroyed on the way to Greenland in July, 1898. They had been verified at the Physikalisch-Technische Reichsanstalt in Charlottenburg and had no appreciable corrections at the temperatures observed.

Thermometers Küchler Nos. 1, 3, 4, 6, 10, 12, 18 and 21. They were divided into fifths of a degree centigrade, and were swung by a whirling mechanism when used for taking the temperature of the air or as a psychrometer. The corrections found in Kristiania in 1898, and applied, were

	No. 1.	No. 3.	No. 4.	No. 6.	No. 10.	No. 12.	No. 18.	No. 21.
at + 8°	0.0	+ 0.5	0.0	0.0	0.0	0.0	0.0	0.0
„ 0°	+ 0.0	+ 0.4	0.0	0.0	0.0	0.0	0.0	0.0
„ – 13°	– 0.2	+ 0.2	– 0.25	0.0	– 0.07	– 0.1	– 0.3	0.0

No. 3 and No. 12 were used only for the sea temperature.

The *force of vapour* and the *relative humidity* have been computed from the readings of the dry and wet thermometers by means of Jelinek's Psychrometer-Tables. Readings of the wet thermometer below zero are corrected by Ekholm's rule.

The *direction of the wind*, as felt on board, was observed by the mariner's compass.

The *velocity of the wind*, as felt on board, was observed with Mohn's hand-anemometer. Coefficient of friction one metre per second.

The observed direction and velocity of the wind have been converted into the true astronomic direction and true velocity in metres per second, by taking into account the deviation of the compass, the variation of the compass or magnetic declination, the lee-way of the ship, the rate and course of the ship, and the observed direction and velocity of the wind.

The *direction of swell or sea* was observed by compass and reduced to true direction.

The *state of sea* was estimated in accordance with the usual scale,

0 = dead calm	4 = moderate	7 = high
1 = very smooth	5 = rather rough	8 = very high
2 = smooth	6 = rough	9 = tremendous.
3 = slight		

The *hours of observation* are ship's local time, civil date.

The *position of the ship.* The latitude and longitude (Greenwich Mer.) for each hour of observation have been computed from the data

given in the ship's journal of the Fram, and from Capt. SVERDRUP'S description of the voyage. The positions found by dead reckoning have been corrected by means of the astronomical determinations of latitude and longitude.

In some cases it has been very difficult, or impossible, to find the true position. This is particulary the case when the Fram was stopped by the ice, and the weather made it impossible to obtain observations of the sun, for instance, in 1898 in Melville Bay, from the 7th to the 13th August, and in 1900, in the Belcher Channel from the 26th August to the 17th September.

SEA-OBSERVATIONS.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 1	2	59° 45′	2° 42′	SWbW	6.0	760.9	11.8	8.7	85	2	Ci-Cu	WSW		NWbW-WSW	5	11.1
	6	52	— 59	WbS	4.3	59.8	11.6	8.4	84	8	Ci-Cu	W		WSW-W	4	11.1
	10	60 8	3 22	WbS	5.7	57.3	12.0	8.6	83	6	Cu-Nb	W		WSW	4	11.0
2	2	— 20	— 54	SWbW	7.0	56.5	11.8	8.2	80	10	St-Cu	WSW		W	4	10.5
	6	— 37	4 30	SWbW	7.0	57.6	11.0	7.6	77	10	Cu-Nb	WSW	◍^{0}	W	5	10.7
	10	— 43	5 0	WSW	7.0	53.4	10.5	6.8	72	7	Cu	WbS		WbS	4	10.7
	2	— 54	— 33	WbN	7.0	52.3	9.7	6.8	75	8	Nb	WNW	◍^{0}	WNW	5	10.5
	6	— 55	6 4	WSW	1.2	52.7	10.7	6.7	73	4	Ci	NWbW		W	4	10.3
	10	— 49	— 23	NNE	1.9	53.8	8.9	7.5	88	1^2	St-Cu	NNW		W	4	8.9
3	2	— 48	— 40	N	4.8	55.9	11.0	7.4	75	4	St-Cu	NWbW		NWbW	3	10.2
	6	— 40	7 35	N	8.0	57.5	9.3	7.3	84	10	Nb	NNW	◍^{0}	WNW-NNW	6	9.9
	10	— 26	8 15	NbW	8.2	60.1	9.5	7.6	87	10	Nb	NNW	◍^{0}	NWbW	7	9.7
	3	— 37	9 15	NbW	7.1	62.9	9.3	7.2	83	9^2	St-Cu	NNW		NWbW-NNW	5	9.7
	8	— 34	10 9	NbW	6.7	64.1	9.1	7.1	83	10^2	Nb	NNW	◍^{0}	NNW	5	10.1
	Midt.	— 31	— 40	NNW	4.7	66.6	10.0	7.8	86	9	Cu-Nb	NNW		NNW	4	9.4
4	4	— 28	11 5	NbW	2.9	66.9	8.8	6.6	78	9	St	NNW		NNW	3	9.9
	6	— 27	— 18	N	2.7	67.4	9.2	5.4	62	4	St	NNW		NNW	3	10.1
	10	— 21	— 59	SbW	4.6	67.4	9.4	5.6	62	1^0	Ci	SWbS	[1]	NNW-SWbS	3	10.5
	2	— 24	12 41	SbW	6.4	67.2	10.1	6.7	73	10^0	St-Cu	SWbS		SWbS	2	9.5
	6	— 29	13 24	WSW	5.3	63.7	11.1	8.3	84	10	Nb	SWbS	◍^{0}	SWbS	3	10.3
	10	— 31	14 9	SSW	10.4	57.9	11.3	8.6	87	10^2	Nb	SWbS	◍ [2]	SWbS	6	10.7
5	2	— 47	— 44	WSW	8.2	58.1	10.9	9.2	96	10	Nb	WbS	◍^{0}	WbS	6	10.4
	6	61 7	15 8	WbS	5.7	58.9	10.3	8.4	90	10	Nb	WbS	◍^{0}	WbS-WbN	6	10.5
	10	— 27	— 33	W	5.0	59.4	11.0	8.9	91	9	Nb	WbS	◍^{0} [3]	WbN	4	10.8
	2	— 36	— 58	W	2.7	58.5	11.1	9.0	90	9	Nb	WbS	◍^{0}	WbN	3	11.3
	6	— 37	16 30	WbN	9.7	54.8	10.9	9.0	93	10^2	Nb	SWbW	◍^{2}	SWbW	5	11.3
	10	— 39	— 52	WbS	11.0	51.0	11.1	9.6	98	10^2	Nb		◍^{2} [4]	WbS	7	11.1
6	2	— 54	17 29	SWbW	11.5	49.1	10.4	8.7	93	10^2	Nb	SWbW	◍	SWbS	7	10 9
	6	62 11	— 48	W	10.9	51.7	10.0	8.2	89	8^2	Nb	WbS	◍^{0} [5]	WbS	7-8	10.7
	10	— 28	— 52	WbN	13.6	52.8	10.1	7.9	86	10^0	St-Cu	WNW		WbS	8	10.5
	6	— 23	— 39	NWbW	14.5	58.8	9.7	7.2	82	8	Cu	WNW		WbS	8	11.4
	10	— 14	— 31	NWbW	12.5	61.5	9.6	7.4	84	10	St	WNW		WbS	8	10.3
7	2	— 4	— 27	NWbW	10.4	63.3	[6]			8	St-Cu	WbS		WbS	6	10.4

	6	61 56	— 20	NWbW	8.6	64.0	9.6	7.2	82	10	Nb	WNW		WbS	4	10.4
	10	— 45	— 15	NWbW	8.5	66.3	9.8	6.8	75	6	St-Cu	WNW		WNW	3	10.7
	2	— 38	— 8	NWbW	5.0	67.6	10.4	6.8	73	3	Ci-St	WbS		WbS	2	10.7
	6	— 34	— 1	WNW	4.2	68.1	10.8	6.7	70	2	Ci-St	WbS		WbS	2	10.9
	10	— 37	— 18	SWbS	5.3	68.4	10.5	7.7	81	10^{0}	Ci-St	WbS		WbS	2	10.7
8	2	— 40	— 43	S	5.5	66.3	11.0	8.8	90	10	Nb	SWbS	●^{0}	WbS	2	11.1
	6	— 39	18 30	SbW	3.0	66.7	11.0	9.0	92	10^{2}			≡^{2}	WbS	2	9.9
	10	— 32	19 16	S	5.2	65.8	12.0	8.9	86	9	St-Cu	SWbS		WbS-SWbS	2	11.3
	2	— 27	20 8	S	7.0	65.2	12.7	9.5	88	9	St-Cu	SWbS		SWbS	4	11.1
	6	— 25	— 25	SbW	8.7	64.2				10^{2}	Nb	SWbS	●^{2}	SWbS	4	11.0
	10	— 26	21 22	S	6.7	64.1	11.2	9.4	95	10	Nb	SWbS	≡	SWbS	5	10.9
9	2	— 29	— 52	S	5.2	64.6	11.0	8.9	91	10^{2}	Nb	NWbN	●^{0}	SWbS	3	10.8
	6	— 32	22 22	NbW	3.2	64.9	9.4	8.2	93	10^{0}	Nb	NWbN	≡^{0}	SWbS	2	10.5
	10	— 35	— 35	NWbN	3.1	66.4	11.6	7.2	71	6^{0}	St-Cu	NWbN		NWbN	2	10.7
	2	— 40	— 43	Var.	2.8	67.6	10.0	6.8	74	5^{0}	St-Cu	NWbN		WNW	2	10.9
	6	— 44	— 46	S	3.3	67.7	9.8	6.5	71	8^{0}	St-Cu	SSW		WNW	2	11.0
	10	— 45	23 14	SbW	5.4	67.2	9.6	8.4	95	8^{0}	St-Cu	SSW		NWbN	2	10.7
10	2	— 45	— 54	S	6.7	66.4	10.1	8.9	96	10^{2}			≡^{2}	SSW	3	10.5
	6	— 46	24 33	SSW	7.1	65.7	10.4	8.4	91	10^{2}	Nb	SSW		SSW	3	10.7
	10	— 46	25 13	SbW	9.0	64.9	10.2	8.8	95	10^{2}	Nb	SSW	●^{0}	SSW	4-5	10.3
	2	— 48	— 55	SbW	10.9	63.6	10.8	8.7	91	10^{0}	Nb	SSW	●^{0}	SSW	6	9.9
	6	— 50	26 45	SSW	10.5	62.0	-7			10^{2}	Nb	SSW	●^{0}	SSW	6-7	10.1
	10	— 52	— 56	SSW	10.7	60.1	10.1	8.4	91	10^{2}	Nb	SSW	●^{0}	SSW	7	9.9
11	2	62 0	27 19	SSW	9.2	59.6	9.6	8.4	95	10^{2}	Nb	SSW	●^{0}	SSW	6	9.7
	6	— 11	— 53	WSW	9.4	59.4	8.3	7.4	91	6^{2}	St-Cu	WbS		SSW-WbS	6	9.6
	10	— 24	28 24	WSW	6.0	60.2	9.2	8.2	95	10	Nb	WSW		SSW	6	9.7
	2	— 32	29 2	WSW	6.0	61.3	9.6	7.2	82	6	St-Cu	WSW		WSW	5	9.7
	6	— 24	28 59	WSW	7.5	61.8	9.6	7.6	86	0				SSW	5	9.8
	10	— 14	— 50	SWbW	6.9	62.6	8.8	7.3	87	1	Ci-St			SSW	5	9.7
12	2	— 2	— 45	WbS	8.8	62.8	7.4	7.1	93	3	Ci-St	WbS		WbS	4-5	9.6
	6	61 53	— 37	WbS	7.2	63.3	9.2	7.6	89	5	Ci-St	WbS		WbS	4	9.3
	10	— 42	— 33	WbS	7.0	63.7	9.7	7.7	86	7	St-Cu	WbS		WbS	2	9.7
	2	— 32	— 28	NWbW	5.5	64.0	9.6	8.0	89	4	Ci-St	WNW		WbS	1-2	9.9
	6	— 26	— 17	WNW	4.8	64.4	9.8	8.3	92	3	Ci-St	WbS		WbS	1-2	10.1
	10	— 22	— 5	WNW	3.8	64.1	9.8	8.3	92	5	Cu	WbS		WbS	1	10.1
13	4	— 20	— 15	S	5.6	62.1	10.0	8.7	95	10	Nb		●^{0}	WbS	1	10.3
	6	— 16	— 37	S	5.6	61.3	9.8	8.1	89	10	Nb		●^{0}	WbS	1	9.7
	10	— 25	29 58	SbW	11.7	60.6	9.2	7.6	89	10	Nb			WbS	3	10.1
	2	— 40	— 16	WSW	10.0	59.4	10.0	7.7	84	10	Nb			WbS	5	9.3
	6	— 52	— 28	SWbW	11.3	57.9	9.5	7.2	82	0				WbS	6	9.7
	10	62 4	— 42	WSW	11.0	56.1	8.8	7.3	87	2	Cu	WSW		WSW	6	9.2
14	2	— 13	— 53	WSW	9.9	53.6	8.8	7.1	84	2	Cu	WSW		WSW	6	9.4
	6	— 22	30 8	SWbW	10.8	51.9	9.2	7.3	84	2	Cu	WSW		WSW	6	10.3
	10	— 30	— 21	WSW	11.3	49.6	8.4	6.8	82	10	Nb	WSW	●^{0}	WSW	7	9.3
	2	— 40	— 31	SWbW	6.9	47.3	7.8	7.0	89	10	Nb	WSW	●^{0}	WSW	3	9.1
	7.30	— 44	— 40	WbN	4.2	46.6	8.6	6.3	76	7	Cu	WSW		WSW	2	9.5
	10	— 42	— 44	WNW		46.8	8.1	6.3	78	3	St	WbN		WSW-WbN	2	9.4

[1] 9.45 p. m. ⊕. Too faint to be measured. — [2] Between 10 and Midt. gale from SW with high sea. Topsail and staysail were taken in. — [3] $3^1/_4$ miles rate for sails only, when the engine was stopped for cleaning. — [4] Heavy squalls. — [5] A gleam of sun now and then. — [6] Thermometer broken. — [7] Psychrometer out of order, is to be repaired.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 15	2	62° 36'	31° 18'	NNW	4.9	748.9	7.6	6.7	86	5	Cu	WbN		WbN	3	9.1
	6	— 28	— 45	WNW	7.2	52.0	7.9	6.5	82	4^2	Cu	WbN		WbN-WSW	3	9.1
	10	— 19	32 5	NWbN	7.4	53.8	9.3	6.8	78	3^0	St	WbN		WbN	3	10.1
	2	— 8	— 33	NW	4.8	55.3	8.8	6.7	80	9	Cu	WbN		WbN	3	9.6
	6	61 58	33 0	NWbN	2.8	57.6	8.9	6.1	72	10	St-Cu	WbN		WbN-WSW	3	9.1
	10	— 51	— 32	NEbE	2.4	58.0	8.8	6.4	76	9	Cu	NW		NW	3	9.3
16	2	— 44	34 1	NbE	2.9	60.9	8.7	5.6	67	10	St-Cu	NbW		WSW	3	9.3
	6	— 37	— 32	E	5.3	61.8	8.4	6.2	76	9	St-Cu	NEbN		NEbN	3	9.0
	10	— 27	35 15	E	7.5	61.3	8.8	6.1	72	10^2	St	EbN		EbN	2	8.5
	2	— 18	— 56	E	8.2	58.7	8.6	6.3	76	10	St	EbN		EbN	3	8.1
	6	— 5	36 40	E	10.2	56.2	8.2	7.7	94	10	St-Cu	EbN		EbN	4	8.3
	10	60 46	37 8	NE	11.4	55.5	8.8	6.6	78	10	St-Cu	NEbN		NEbN	4	8.5
17	2	— 35	— 35	NNE	5.9	57.9	8.0	7.0	88	8	St-Cu	NEbN		NEbN	4	8.7
	6	— 27	38 12	NNE	6.9	59.3	8.2	6.9	85	9	St-Cu	NEbN		EbN-NbW	4	7.6
	10	— 15	— 48	NNE	6.6	62.7	8.5	7.2	87	8	St-Cu	NEbN		NbW	3	8.8
	2	— 9	39 28	NNE	5.8	63.8	8.8	6.8	81	8	St-Cu	NEbN		NbW	3	8.4
	6	— 3	— 58	NEbE	2.8	65.0	7.3	6.3	83	9	St-Cu	NEbN		NbW	2	7.3
	10	59 56	40 30	E	4.7	65.4	7.0	6.8	91	9	St-Cu	NEbN	[1]	NEbN	1	7.1
18	2	— 49	— 58		0	65.4	6.3	5.8	81	9	Ci-Cu			NEbN	2	6.6
	6	— 42	41 25	EbN	3.8	65.8	6.1	6.3	90	8	St	EbN		NEbN	1	5.8
	10	— 35	— 49	E	4.9	65.5	5.8	6.3	91	9	St-Cu	EbN	[2]	EbN	1	4.9
	2	— 27	42 15	SSE	2.3	65.2	5.4	6.0	89	10	St-Cu	EbN		EbN	0	2.5
	6	— 24	— 30	SSE	2.4	64.5	3.3	5.4	93	9	St-Cu	SE			0	2.2
	10	— 17	— 40		0	64.1	2.1	5.1	94	10			$\equiv^2$		0	1.0
19	2	— 12	— 52		0	63.8	2.1	5.2	96	10			$\equiv$ [3]			0.5
	7	— 2	43 10	WSW	1.7	63.1	2.4	5.2	94	10			$\equiv$	WSW	0-1	2.3
	10	58 53	— 20			62.1	6.6	5.6	77	1	Ci		[4]		0	2.0
	2	— 53	— 20	WSW	0.8	61.5	6.6	6.0	83	0			[5]		0	2.2
	6	59 17	— 25	W	2.3	61.3	4.1	5.6	92	0					0	2.6
	10	— 15	— 48	WbS	2.4	60.3	2.2	5.0	93	2	Ci	WSW	[6]		0	1.6
20	2	— 5	44 0	WbN	3.1	59.5	2.4	5.0	91	0			∞ [7]			1.6
	6	— 3	— 30	WbS	6.3	59.3	5.2	6.2	94	3	Ci	WbN	[8]	WbN	1	3.7
	10	— 0	45 3	SWbW	4.0	58.1	8.3	6.9	86	3	Ci	W		WbN	2	5.6
	2	— 3	— 46	SW	6.2	56.2	8.2	7.1	88	6	Ci	WSW		WSW	3	5.2
	6	— 8	46 22	SW	5.6	55.0	7.5	7.6	99	10			$\equiv$	WSW	4	5.5
	10	— 11	47 0	SW	5.7	54.7	5.4	6.2	92	2	Ci	WSW		WSW	4	4.0
21	2	— 5	— 2	NWbN	3.7	55.8	6.8	6.7	91	10			$\equiv$	SW	4	5.6
	6	58 31	— 10	SW	1.6	56.2	5.8	6.5	94	10			$\equiv^2$	WSW	3	3.3
	10	59 0	— 21	SSW	3.7	56.7	8.0	7.6	94	10			$\equiv$	WSW	3	6.7
	2	— 5	— 55	SbW	5.7	55.9	10.2	8.4	91	0	Ci	WSW	[9]	WSW	3	7.5
	6	— 10	48 36	SSW	7.4	56.0	9.2	7.6	89	0	Ci	WSW		WSW	3	7.7
	10	— 20	49 12	SSW	6.1	55.9	7.0	7.3	98	10			$\equiv^2$	WSW	3	6.7

22	2	—	25	—	28	NW	4.7	57.5	6.2	6.7	94	10^2	Nb	NW	◍^{0}		WSW	3	6.6
	6	—	35	—	25	WbS	6.2	59.3	6.7	6.3	86	2	Ci	WSW			WSW	3	6.9
	10	—	48	—	37	WbS	4.3	61.1	6.8	6.2	84	7	Ci-Cu	WSW			WSW	3	5.8
	2	—	5	—	50	N	3.7	62.0	6.4	6.2	87	8	Ci-Cu	WSW			WSW	2	5.3
	6	60	20	50	12	NW	2.3	63.6	6.4	6.3	88	3	Ci	NWbW			NWbW	1	5.2
	10	—	34	—	30	SWbW	4.3	64.2	5.6	6.2	91	1	Ci	NWbW			NWbW	1	5.8
23	2	—	48	—	43	WbS	4.9	65.1	4.3	5.3	85	10	St-Cu	WSW			WSW	3	5.2
	6	61	6	—	50	WSW	2.7	65.3	3.9	5.6	92	10	Nb	WbN	◍^{0}		WbN	3	4.8
	10	—	23	—	57	W	1.8	65.5	5.0	5.7	87	10	St-Cu	WSW			WbN	3	4.5
	2	—	36	51	32	SW	3.1	65.5	9.4	5.2	59	2	Ci	NWbW			NWbW	1	5.7
	6	—	45	—	51	WSW	2.8	65.1	7.0	6.4	85	0					NWbW	1	5.6
	10	—	56	52	16		0	64.4	6.4	6.3	88	1	Ci				SWbW	2	4.6
24	2	62	6	—	38	EbS	4.4	62.6	4.8	6.1	96	2	Ci	EbN			EbN	1	4.8
	6	—	20	53	11	E	7.5	61.4	4.1	5.8	95	10			≡		EbN	1	4.9
	10	—	35	—	48	E	7.8	59.4	4.6	5.3	84	10^2	Nb	ENE	◍^{0}		ENE	2	4.2
	2	—	58	54	14	E	7.5	58.3	4.1	5.5	90	10^2	Nb	ENE	◍^{0}		ENE	2	3.3
	6	63	30	—	12	EbS	8.3	59.4	2.1	5.2	96	10			≡		ENE	1	1.6
	10	64	0	—	12	ESE	4.7	59.8	3.9	4.4	72	10^2	Nb	ENE	◍		ENE	1	1.0
25	2	—	21	—	10	EbS	1.3	60.2	2.1	5.1	94	10	Nb	NNE	◍^{0}		ENE	1	2.6
	6	—	38	—	5	SE	1.3	60.7	3.5	5.0	85	10	Nb	NNE	◍^{0}	[10]	ENE	2	2.2
	10	—	56	—	3	SbE	3.6	60.8	5.4	5.9	87	9	St-Cu	SEbE				0	2.1
	2	65	14	53	50		0	62.2	6.2	5.7	81	8	St-Cu			[11]		0	3.2
	6	—	26	—	40	NE	2.3	61.4	4.5	5.0	79	5	Ci-Cu	NNW		[12]		0	1.0
	10	—	39	54	0		0	61.5	1.8	4.6	88	4	Ci-Cu			[13]		0	1.6
26	2	—	55	—	34	NbW	2.0	61.8	2.2	4.8	89	7	Ci-St	NNW			NbE	1	2.0
	6	66	7	—	44		0	62.0	2.3	5.0	87	6	St-Cu			[14]		0	0.0
	10	—	20	55	6	N	1.0	61.6	2.9	5.1	90	7	Ci-St	NNW		[15]	NNW	0-1	1.2
	2	—	32	—	14	NWbN	3.0	61.5	3.9	5.3	87	8	St.Cu	NNW		[16]	NNW	0-1	2.6
	6	—	43	—	0	EbN	3.9	61.3	4.3	5.0	80	5	Ci	NbE		[17]		0	3.8
	10	67	0	54	50	NEbN	4.3	60.9	3.3	4.9	85	6	Ci-Cu	NbE		[18]	NbE	0-1	3.0
27	2	—	12	—	58	EbN	6.4	60.0	3.6	5.3	90	7	Ci-Cu	NbE		[19]		0	4.1
	6	—	27	55	0	NbW	6.0	58.2	4.7	5.6	87	7	Ci-Cu	NbW		[20]	NbW	1	3.2
	10	—	47	—	2	NNE	5.0	56.3	4.6	5.6	89	7	St	NbE			NbE	1	3.8
	2	68	6	—	5	N	4.1	55.2	4.8	5.4	84	8	St-Cu	NbE			NbE	1	3.7
	6	—	23	54	52	SWbS	2.4	57.0	3.4	5.2	90	10	St-Cu	WSW		[21]	WSW	1	3.2
	9	—	28	—	20	WSW	7.0	59.1	3.4	5.6	97	10	St-Cu	SW	◍		SW	2	3.4
28	2	—	29	53	40	ESE	2.2	59.0	4.0	5.7	93	10^2	Nb		◍^{2}		SW	2	3.6
	8	—	31	—	25	NE	5.1	56.8	6.6	5.5	76	5	Ci-St	NbE		[22]		0	4.6
	10	—	35	—	20	NbE	6.9	54.8	4.8	5.6	87	2	Ci	NbE		[23]	NbE	1	2.7
	2	—	42	—	14	NbE	5.7	50.8	6.0	5.7	82	2	Ci-Cu	NbE			NbE	2	4.0
	6	—	44	52	47	NbE	2.4	50.2	8.1	5.5	68	7	Ci-Cu	NbE		[24]		0	5.6
	10	—	44	—	47	SW	5.5	52.4	5.3	5.8	87	10	Nb	SW	◍			0	4.0

[1] Ice-blink to W. — [2] 11 a. m. came into the drift-ice. — [3] Still in drift-ice. — [4] ≡ horizon. Fast in the drift-ice. — [5] Dim horizon. Going in the ice. — [6] ≡ over the ice. 11 p. m. moored to an ice-floe. 11.10 p. m. ♕ NNW-SSE in zenith, during 10 min. — [7] Still mooredto the ice-floe. 2.30 a. m. went on to take Fram out of the ice. — [8] 5 a. m. entered the open water. — [9] Dim hor. — [10] An icebelt ahead and astern in a distance of about half a mile. — [11] Detached bigger icebergs. — [12] Near the floating ice about 1 mile off the Sukkertop. — [13] Swell of the drift-ice. — [14] Detached patches of floating ice. — [15] A bigger icefoot in 2 miles distance on starboard. Single icebergs. — [16] Compact drift-ice ahead. — [17] Passed 2 belts of floating ice. Looming ice towards N and E. — [18] Ice in 2 miles distance on starboard. — [19] Drift-ice detached along the shore. — [20] Lay still for halibut-fishing — [21] Ice all around. — [22] Lie still off Egedes Minde. — [23] Lie still, waiting for pilot. — [24] In the harbour at Egedes Minde.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 29	9	68° 44′	52° 47′	WbS	8.8	756.5	3.8	5.4	90	10	Nb	WbS	[1]			3.7
	2	— 44	— 47	WSW	8.8	58.3	3.4	5.4	93	10	Nb	WbS	◍ [2]			3.3
	6	— 44	— 47	SWbS	5.7	60.1	2.7	5.1	91	10	Nb	SW	◍ [3]	SW	1	3.7
	10	— 58	53 3	SW	3.6	60.1	2.8	4.9	88	10	Nb	WbS	◍	WbS	1	4.0
30	2	69 11	— 20	E	2.2	59.0	2.7	5.3	94	10	Nb	ESE	◍ [4]	S	1	5.0
	6	— 15	— 25	NEbE	6.0	57.5	3.3	5.2	90	9	St-Cu	NEbE				2 6
	10	— 15	— 25	WbS	1.6	55.2	7.0	6.4	85	2	St	SW			0	4.6
	2	— 15	— 25	W	2.8	53.2	8.7	6.2	74	2	St	SW			0	5.1
	6	— 15	— 25	W	0.0	51.9	6.0	5.5	79	1	Ci	WNW				5.2
	10	— 15	— 25	W	1.2	50.9	4.8	5.3	82	0-1°	Ci	WNW				5.1
Aug. 2	6	— 15	— 25	WbS	3.2	61.5	5.3	5.1	76	0					0	5.2
	10	— 13	— 36	WbS	3.7	62.5	3.0	5.0	88	10	Nb	WNW	[5]		0	5.1
3	2	— 18	54 17	SEbE	3.7	62.7	2.6	4.3	77	9	St				0	
	6	— 33	— 50	SEbE	7.7	62.9	3.1	4.7	83	10	St	ESE		ESE		
	10	— 55	55 30	EbS	8.5	63.6	3.5	4.8	82	9	St-Cu	ESE		ESE		
	2	70 22	— 50	EbS	8.3	61.8	4.7	5.4	84	9	St-Cu	ESE		ESE		
	6	— 46	56 15	SSE	7.6	61.5	3.9	5.4	88	10	St	ESE	◍°	SbE		
	10	71 8	— 45	SSE	8.8	61.7	4.2	6.0	97	10	Nb	ESE	◍ [6]	ESE		
4	2	— 27	57 10	SSE	9.5	61.0	4.1	5.4	88	10	Nb	ESE	◍° [7]	ESE	2	3.3
	6	— 49	— 22	SbE	9.1	61.5	4.2	5.6	90	10	Nb	ESE	◍	ESE	2	2.6
	10	72 9	— 32	SbE	9.1	61.6	4.6	5.2	82	10	Nb	ESE	◍°	ESE	2	2.3
	2	— 30	— 42	SSE	8.5	62.3	4.9	5.4	82	10	Nb	EbS	◍°	ESE	2	2.5
	6	— 44	— 0	S	6.3	62.9	4.3	5.4	87	9	Nb	ESE	[8]	ESE	1	3.3
	10	— 47	56 7	SbE	1.2	63.1	7.0	5.2	70	9	Ci-St	ESE	[9]			3.4
5	8	— 47	— 7	N	2.2	63.4	4.9	5.4	82	8	Ci-Cu	N				4.6
	2	— 58	— 50		0	63 5	6.0	5.3	76	1	Ci	N	[10]		0	4.9
	6	73 10	57 33		0	63.0	4.2	5.2	85	1	Ci	N			0	2.3
	10	— 28	— 55	EbS	1.0	62.3	4.1	5.0	82	1	Ci	N			0	2.8
6	2	— 45	58 15	NbE	3.8	61.7	3.9	4.5	73	1	Ci	NbE	[11]	NbE	0-1	2.9
	6	74 5	— 37	EbS	2.9	61.6	4.1	5.2	85	1	Ci	NbE	[12]	NbE	0	3.6
	10	— 28	59 0	SEbE	2.6	61.8	6.8	5.4	73	1	Ci	EbS			0	3.3
	2	— 48	— 40	E	2.0	61.8	4.2	5.1	82	2	Ci	NbE			0	2.5
	6	75 1	60 35	ESE	4.7	61.8	3.4	4.8	82	1-2	Ci	NE			0	2.0
	10	— 15	61 30	EbN	3.9	60.5	1.4	4.3	85	2	Ci	NE			0	0.8
7	2	— 20	— 50	NE	3.4	60.9	— 0.5	3.9	88	2	Ci	NEbN	[13]		0	— 0.6
	6	— 24	— 20	NNE	2.2	60.5	— 0.9	4.0	93	0	Ci	NE			0	— 0.8
	10	— 24	— 50	ESE	4.7	60.2	1.1	4.4	89	1	St	EbS			0	— 0.3
	2	— 25	— 40	SEbE	2.5	59.0	2.3	4.3	79	3	Ci-St	EbS			0	— 0.2
	6	— 25	— 32	SEbE	5.0	57.8	2.1	4.4	82	10	St	SSE	◍° [14]		0	— 0.8
	10	— 26	— 24	SEbE	9 4	55.9	1.4	4.9	96	10	Nb	EbS	◍&◍✱°		0	
8	2	— 27	— 16	SEbE	11.5	53.9	1.7	4.7	91	10²	Nb	SEbE	◍&◍✱		0	— 1.0
	6	— 27	— 8	SEbE	6.3	54.0	0.8	4.7	96	10²	Nb	SEbE	◍		0	
	10	— 28	— 0	SbW	3.7	56.1	1.4	4.8	94	10	Nb	SSW	≡ [15]		0	— 0.9

	2	— 28	— 5	SSW	4.0	58.3	2.6	4.8	87	10	Nb	SSW	≡°	16		0	— 0.9
	6	— 27	— 10	SSW	2.8	60.0	1.3	4.3	85	10	Nb	SSW				0	— 0.8
	10	— 26	— 15	EbS	1.3	61.3	0.6	4.4	92	10	Ci-Cu		≡			0	— 1.0
9	2	— 26	— 20	ENE	2.3	60.7	0.4	4.5	96	10	Nb	EbS	●&●*°			0	— 0.9
	6	— 25	— 25	NbW	3.2	60.0	1.5	3.8	74	10	Nb	NbW	●			0	— 0.9
	10	— 25	— 30	NbW	3.4	58.6	1.4	4.8	78	10	Nb	NbW	●			0	— 0.8
	2	— 26	— 33	NbW	2.2	57.4	1.2	3.8	78	10	Nb	NbW	●°			0	— 0.7
	6	— 27	— 35	NWbW	1.4	57.9	1.7	4.0	77	10	St-Cu	NWbW		17		0	— 1.0
	10	— 27	— 38	EbS	2.3	58 5	— 0.9	4.3	99	2	St	EbS				0	— 0.6
10	2	— 28	— 40	SWbW	4.2	59.2	— 1.6	3.9	94	1			≡			0	— 1.0
	7	— 29	— 43	S	5.0	61.5	— 1.5	3.8	93			S	≡°			0	— 0.8
	10	— 30	— 45	SSE	4.4	61.5	0.2	3.8	81	7			≡°			0	— 1.0
	2	— 30	— 49	SSE	2.4	762.3	0.8	4.5	92	5	Ci-Cu	SSE	∞				— 0.9
	6	— 31	— 53		0	62.7	1.1	4.5	90	0			≡			0	— 0.7
	10	— 32	— 57	SSE	3.0	62.7	— 1.6	4.1	99			SSE	≡				— 0.9
11	2	— 33	62 2		0	62.2	— 1.5	3.7	88	1	Ci			18		0	— 1.0
	6	— 34	— 6		0	61.8	— 0.3	4.1	90	6	St-Cu		∞			0	— 0.8
	10	— 35	— 10	EbS	3.4	62.7	0.6	4.4	92	7	Cu	EbS		19		0	— 0.4
	2	— 35	— 13	EbS	4.4	60.8	0.9	4.5	90	10		EbS	*			0	— 0.9
	6	— 36	— 17	EbS	4.5	59.5	1.1	4.1	83	10	Nb	EbS	$*^2$			0	— 0.9
	9	— 36	— 20	EbS	8.0	57.0	0.6	4.6	96	10		EbS	$*^2$			0	— 0.8
12	2	— 37	— 24	EbS	5.1	56.8	0.2	4.2	90	10			≡&●			0	— 0.8
	6.30	— 37	— 27	SSE	1.6	58.7	0.6	4.7	98	10			≡			0	— 0.5
	10	— 38	— 30	SSE	2.5	60.7	0.6	4.7	98	10			≡			0	— 0.8
	2	— 38	— 34	S	1.2	61.8	2.3	4.6	84	10			≡			0	— 0.7
	6	— 38	— 38		0	63.7	1.4	4.8	94	10			≡	20		0	— 0.6
	10	— 38	— 42	SbW	1.8	64.7	0.2	4.2	90	9	St-Cu	SSW	≡	21		0	— 0.7
13	2	— 42	63 0	ENE	2.3	64.5	1.1	4.4	89	10	St-Cu	E		22		0	— 1.0
	6	— 43	— 40	EbN	2.8	63.8	1.8	5.1	96	9	St-Cu	E		23		0	0.3
	10	— 38	64 50	NEbE	4.0	63.0	1.3	4.6	91	6	St-Cu	E				0	1.1
	2	— 38	65 38	NNW	2.6	61.6	1.6	4.3	84	1	St	E				0	1.9
	6	— 32	67 5	NbW	3.0	60.5	0.8	4.4	90	0						0	0.8
	10	— 43	68 20	NEbE	0.8	59.6	1.0	4.2	85	0						0	1.0
14	2	— 52	69 10	NbW	4.7	58.4	— 0.4	4.1	92	1	Ci	NNW				0	— 0.1
	6	— 58	70 28	NWbN	5.7	57.6	0.5	4.1	85	0				24		0	— 0.2
	10	76 15	71 20	NW	5.6	56.7	1.4	4.3	85	1	Ci	NW			NW	1	— 0.2
	2	— 34	— 50	NWbW	7.7	55.5	2.4	4.7	85	0					NW	1	— 0.4
	6	— 50	72 10	NWbW	7.3	54.7	3.0	4.3	76	0					NW	1	1.6
	10	77 6	— 30	NWbN	4.4	54.1	1.8	4.5	85	0					NW	1	1.2
15	2	— 24	— 50	NW	1.0	53.9	1.2	4.4	89	0				25		0	2.4
	6	— 38	73 25	NbW	1.3	53.8	3.0	4.5	79	0						0	2.3
	10	— 52	— 45	WbN	3.0	53.5	3.9	5.1	84	1	Ci-St	NWbN				0	3.1
	2	78 2	— 45	W	7.2	52.9	2.9	4.6	80	1	Ci-St	NWbN				0	2.8

[1] and [2] At anchor at Egedes Minde. — [3] At leaving Egedes Minde. [4] 3.30 a. m. Godhavn. — [5] Just leaving Godhavn. Several icebergs around. — [6] Ice ahead. — [7] A little drifting ice and icebergs unto off Upernivik. — [8] 25′ off Upernivik. — [9] At Upernivik to next day 10 a. m., when parting. — [10] Several bigger icebergs around. Looming along the shore. — [11] Iridescent clouds. ⊕ Semidiameter 22°. — [12] Icebergs all the day. — [13] In drifting ice and crizzled sea. 4 a. m. stopped in the ice. 9 a. m. again going, stopping now and then on account of the ice. — [14] 7 p. m. fast in the ice to next day 10 a. m. — [15] Navigation in the ice, which is a little slacking. — [16] Fast the following days unto the 12th 8 p. m. — [17] ≡ hor. — [18] and [19] ≡ hor. — [20] Commenced ramming us through. — [21] Navigation in the ice. — [22] Drifting ice all the day. — [23] In clear water. — [24] Steered through belts of drifting ice. — [25] Athwart of Inglefield Gulf.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 15	7	78° 12'	73° 30'	WNW	6.8	52.8	2.0	4.9	93	0-1	Ci	NWbN	1		0	2.3
	10	— 20	72 50		0	52.2	8.7	6.6	78	0	Ci		2		0	2.6
16	8	— 20	— 50	SbW	2.2	52.2	6.0	4.7	67	3	Ci-St	SbW			0	2.2
	2	— 20	— 50	SW	2.3	53.0	5.0	5.2	80	5	St	SbW	3		0	2.3
	8	— 33	— 40	SW	8.8	52.3	1.9	4.4	84	8	St-Cu	SbW		SbW	1	1.2
	11	— 33	— 40	SbW	7.1	52.3	2.1	4.4	82	3	St-Cu	SbW	4		0	— 1.0
17	3	— 33	— 40	SbW	5.0	52.7	1.9	4.8	91	7	St-Cu	SbW			0	— 1.1
	6	— 40	73 0	SbW	4.2	53.0	1.3	4.5	89	9	St-Cu	SbW	5		0	— 1.0
	2	— 45	— 45	SSW	6.7	54.4	0.8	4.6	94	10			≡ 6	SbW	3	0.2
	6	— 45	74 15	SSW	10.8	53.8	2.0	4.3	80	9-10	St	SWbS		SWbS	2	— 0.8
	10	— 45	— 30	SWbS	11.2	55.1	2.8	4.1	72	9	St-Cu	SWbS	7	SWbS	3	— 0.4
18	2	— 45	— 30	SE	1.8	55.0	2.4	4.3	79	10	Nb	SE	●° 8		0	— 0.6
	6	— 47	— 50		0	55.4	2.4	4.7	85	7	St-Cu		9		0	0.0
	10	— 47	— 50		0	54.9	2.4	5.1	93	10			≡		0	0.2
	2	— 46	— 57	NNE	2.0	54.3	2.8	4.9	88	10		NNE	≡		0	0.0
	6	— 46	— 57	NbW	3.2	54.3	2.0	4.8	91	10			≡		0	— 0.3
	10	— 46	— 57	NbW	1.2	53.9	2.6	4.5	80	10			∞		0	— 0.2
19	2	— 46	— 57		0	53.8	2.4	4.9	89	10			≡		0	— 0.3
	6	— 46	— 57		0	53.9	3.6	5.0	85	10	Nb	NbW	●°		0	— 0.2
	2	— 46	— 57		0	52.8	3.8	4.4	77	8					0	0.0
	6	— 47	— 47		0	52.8	1.4	4.3	85	9	St-Cu	NbW	10		0	0 0
	10	— 47	— 47		0	53.0	2.0	4.5	85	7	St-Cu		11		0	— 0.4
20	2	— 47	— 47		0	53.2	0.9	4.3	87	8	St-Cu	NWbN	12		0	— 0.5
	7	— 47	— 47		0	54.5	1.2	4.4	89	7	St-Cu				0	— 0.4
	11	— 47	— 47		0	55.2	2.6	5.0	91	8	St-Cu	WbN			0	— 0.3
	2	— 47	— 47		0	56.0	2.4	4.5	80	8	St-Cu	WbN			0	— 0.2
	6	— 47	— 47		0	56.9	1.3	4.3	85	9	St-Cu				0	— 0.5
	10	— 47	— 47		0	56.3	1.4	4.1	82	9	St-Cu				0	— 0.7
21	2	— 47	— 47		0	57.5	1.3	4.3	85	9	St-Cu				0	— 0.6
	6	— 47	— 47		0	58.0	2.2	4.3	80	6	St Cu				0	— 0.5
	10	— 47	— 47		0	57.7	2.9	4.5	79	5	St-Cu	EbN			0	— 0.5
	2	— 47	— 47		0	57.8	1.9	3.6	67	1	St-Cu	WSW			0	— 0.2
	6	— 47	— 47		0	59.3	1.0	4.2	85	7	St-Co	NNE			0	— 0.2
	10	— 47	— 47	NWbW	3.2	59.3	1.0	4.2	85	7	St-Cu	NWbN	13		0	— 0.6
22	2	— 46	— 57	NWbN	8.8	60.5	2.0	3.5	66	7	St-Cu	NWbN			0	— 0.8
	6	Rice Strait		NE	2.2	62.6	1.5	4.3	83	3	Ci	NWbN	14		0	— 0.7
	10			NNE	2.1	61.6	2.8	3.9	69	0-1	Ci	NWbN			0	— 0.6
	2			NNE	3.4	61.3	3.8	3.8	64	0-1	Ci	NNE			0	— 0.4
	6			NNE	1.6	61.1	2.2	3.9	59	2-3	Ci-St	NNE			0	— 0.4
	10			NNE	1.9	60.8	— 0.2	3.1	69	4	Ci-St	NNE			0	— 0.6
23	2				0	60.0	— 0.9	3.4	79	8	St				0	— 0.7
	6			S	7.1	58.9	— 0.7	3.4	77	5	Cu	S			0	— 0.8
	10			SSW	4.8	58.4	1.8	[illegible]	58	0					0	[illegible]

	3			SSW	6.5	56.3	1.4	4.0	80	2	St	S				o	— 0.6
	6			SSW	7.7	55.5	— 0.4	3.9	86	6	Ci-St	S				o	— 0.6
24	2			SSW	3.6	53.2	— 0.6	3.9	87	5	Ci-St	SSW				o	— 0.8
	6				0	53.0	— 0.4	4.2	93	10			*			o	— 0.8
	10			SSW	1.3	52.5	— 0.2	4.4	96	10	Nb	SSW	*			o	— 0.6
	2			SWbS	1.0	52.1	0.9	4.5	90	10	Nb	SWbS	*			o	— 0.5
	6				0	52.8	0.2	4.4	94	10			*			o	— 0.5
	10				0	53.0	0.5	4.3	89	10	Nb		*			o	— 0.6
25	2				0	53.7	0.6	4.3	94	10	Nb		◍ *			o	— 0.7
	6				0	54.4	— 0.8	4.2	97	10	Nb		*°			o	— 0.8
	10			SE	1.0	55.4	0.6	4.2	88	10			*°			o	— 0.6
	2			SE	1.0	55.0	0.5	4.3	89	10			◍ *			o	— 0.5
	6				0	54.7	0.9	4.0	82	10						o	— 0.6
	10			NWbW	2.7	54.2	— 0.5	3.7	84	10	Nb					o	— 0.6
26	2			NWbN	3.2	53.7	— 1.2	3.4	81	8	Ci-St	NWbN				o	— 0.9
	7			NbW	2.2	53.5	— 0.1	3.4	75	10	Cu	NWbN				o	— 0.7
	10			EbN	3.8	53.1	— 0.2	3.6	78	10	Nb	NNE	*°			o	— 0.7
	2			EbN	1.8	53.1	— 0.7	4.0	91	10	Nb	EbN	*°			o	— 0.8
	6			NNE	2.6	53.5	— 2.2	3.5	90	10	Nb	EbN	*°			o	— 0.7
	10			SE	2.2	54.4	— 2.3	3.6	22	10	Nb	EbN	*°			o	— 0.9
27	2			NWbN	1.0	55.7	— 2.5	3.4	87	10	Nb	NWbN					— 0.8
	6.30			NWbN	1.6	57.4	— 1.8	3.5	86	10	Nb	NWbN	*°				— 0.8
	10			EbN	1.0	57.6	— 1.7	3.5	86	10	Nb	EbN	*°				— 0.7
	2			EbN	1.2	59.3	— 0.5	2.9	64	8	St-Cu	EbN					— 0.7
	6			EbN	2.6	60.2	— 1.8	2.9	72	6	Cu	EbN	*°				— 0.8
	10			EbN	3.2	60.4	— 2.4	2.8	72	5	Cu	EbN					— 0.9
28	2			NNE	2.2	60.7	— 2.5	2.5	66	10	St-Cu	NNE					— 0.8
	10			NNE	1.8	59.8	— 1.8	2.8	69	10	St	NNE					— 0.9
	2			NNE	2.7	59.5	— 1.6	2.8	68	8	St-Cu	NNE					— 0.9
	6			NNE	2.1	58.2	— 1.8	2.8	69	6	St-Cu	NNE					— 0.9
	10			NE	1.6	57.2	— 2.5	3.1	81	10	St	NNE					— 0.9
29	2			NE	1.0	57.2	— 2.2	2.9	75	10[2]			*				— 0.9
	6			NNE	2.3	57.4	— 2.9	2.9	78	8	Cu	NNE					— 0.9
	10			NE	2.8	56.4	— 2.5	2.7	70	5	St-Cu	NNE					— 0.9
	2			NNE	1.8	55.0	— 1.7	3.5	86	0							— 0.8
	6			NNE	4.2	54.8	— 3.3	2.7	75	0							— 0.9
	10			NNE	4.4	55.3	— 5.4	2.6	83	0							— 1.1
30	2			NNE	5.1	55.7	— 5.4	2.3	73	0							— 1.4
	6				0	56.4	— 4.0	2.6	76	0							— 1.1
	10			NWbN	2.8	55.6	— 2.0	2.7	67	1·2	Ci	NNE					— 0.9
	2			NNE	5.4	55.8	— 3.6	3.0	86	0							— 0.9
	6			NNE	3.6	55.4	— 1.6	2.2	54	0							— 0.9
	10			NNE	5.3	55.3	— 2.4	2.4	62	0·1	Ci	NNE					— 1.0

[1] In the ice on walrus-catching. — [2] At anchor in Foulkefjord. — [3] 4 p. m. left Foulkefjord. — [4] Fast along the icefoot. — [5] Navigation in ice. — [6] Going in Kane Sea. — [7] 8 p. m. anchored off Cocked Hat Island, near Camp Clay. — [8] At anchor at Camp Clay. 4 p. m. weighed and went on. — [9] At anchor in the northern inlet of Rice Strait, where we stayed to the next day's afternoon. — [10] Weighed 4 p. m. Navigation in ice. — [11] Moored to a floe at Cocked Hat Island. — [12] Moored to the floe to next day 11 p. m. — [13] 11 p. m. at anchor in a bay in Rice Strait. — [14] At anchor at the same place as on the 18th, northern inlet of Rice Strait, where we stayed to the spring next year, our first winter haven.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 31	2	Rice	Strait	NNE	3.2	755.8	− 4.1	2.4	71	0			1			− 1.4
	6			NNE	4.5	55.9	− 3.6	2.5	70	0						− 1.4
	10			NNE	3.5	55.6	− 2.0	2.4	61	0						− 1.1
	2			NNE	3.5	56.3	− 1.6	2.7	66	0						− 1.1
	6			NNE	2.8	57.6	− 1.3	2.6	63	0-1	Ci	NNE				− 1.2
	10			NNE	1.0	59.5	− 3.6	2.6	72	1	St	NNE				− 1.2
Sept. 1	2			NNE	1.0	60.0	− 5.8	2.2	74	0						− 1.3
	6			NNE	1.2	61.6	− 3.6	2.3	67	0-1	Ci	NNE				− 1.2
	10			NNE	1.0	62.3	− 1.0	2.9	67	0						− 1.1
	2			NNE	2.2	63.1	− 2.4	2.7	71	0-1	Ci	NNE				− 1.1
	6			NNE	1.0	64.0	− 4.5	2.2	66	0						− 1.0
	10			NNE	3.0	64.3	− 5.1	2.0	66	0-1	Ci	NNE				− 1.4
2	2			NNE	3.3	64.7	− 5.5	2.3	77	0						− 1.4
	6			NNE	1.0	65.2	− 5.0	2.2	71	0						− 1.4
	10			NNE	2.1	64.3	− 4.2	2.5	75	0						− 1.2
	2			SSE	2.7	63.3	− 3.6	2.5	71	0						− 1.0
	6			EbS	3.5	63.0	− 5.6	2.3	77	0						− 1.0
	10			SE	4.6	61.9	− 5.2	2.2	74	0						− 1.3
3	2			EbN	2.8	60.9	− 4.8	1.7	55	0						− 1.3
	6			EbN	1.7	61.4	− 3.5	2.0	56	0						− 1.4
	10			EbN	2.1	61.0	− 3.2	2.3	65	0						− 1.2
	2			NNE	4.3	60.5	− 2.8	2.4	66	0						− 1.5
	6			EbN	4.1	61.0	− 4.1	1.8	55	0						− 1.4
	10				0	60.6	− 5.3	2.0	68	0						− 1.4
4	2			EbN	3.2	61.1	− 6.4	1.9	69	3	Ci	WSW				− 1.4
	6			NEbN	3.6	60.3	− 5.2	2.4	78	0						− 1.3
	10				0	59.4	− 6.1	2.3	79	0						− 1.1
	6				0	58.3	− 5.4	2.1	68	0						− 1.0
	2			NWbN	3.9	58.7	− 4.6	2.2	70	0						− 1.0
	10			NWbN	4.4	58.9	− 4.9	2.2	71	0						− 1.2
5	2			NWbW	3.1	57.7	− 5.2	2.1	68	6	Cu	WbN				− 1.3
	6			NWbN	3.9	57.9	− 5.0	2.3	74	8	St-Cu	NWbN				− 1.3
	10			NWbN	2.3	57.6	− 4.2	2.3	70	8	St-Cu	NWbN				− 1.2
	2			NWbN	2.1	57.4	− 3.4	2.1	59	10	St	NWbN				− 1.2
	6			NWbN	3.1	57.9	− 4.2	2.5	75	9	Ci-St	NWbN				− 1.2
	10			NWbN	3.5	58.1	− 4.8	2.5	79	10	Nb	NWbN				− 1.3
6	2			NNE	1.4	58.2	− 4.4	2.3	70	10	Nb	NWbN				− 1.4
	6			NNE	2.7	59.3	− 4.4	2.3	73	10	Nb	NNE				− 1.3
	10			EbN	2.9	59.1	− 3.9	2.0	60	9	St-Cu	EbN				− 1.3
	2			EbN	3.0	59.0	− 3.6	2.9	82	9	St-Cu	EbN				− 1.2
	6			NWbW	1.3	59.5	− 5.4	2.1	71	1	Ci	NbW				− 1.2
	10			NWbN	2.3	60.0	− 4.2	2.2	66	10	Nb	NWbN				− 1.2
7	2				0	60.4	− 4.6	2.4	74	10	St-Cu					− 1.2

	0			NWbN	1.3	61.1	−4.9	2.3	74	2	Ci-St	NWbN					−1.3
	10			WSW	2.4	60.3	−4.2	2.6	79	2	Ci	WSW					−1.2
	2			WSW	2.3	59.1	−5.2	2.2	74	1	Ci	WSW					−1.3
	6			WSW	2.2	57.9	−4.6	2.2	67	8	Ci-Cu	WSW					−1.3
	10			WSW	2.2	56.2	−6.3	2.1	76	7	St-Cu	WSW					−1.3
8	6			EbN	1.1	54.1	−6.4	2.2	79	5	Ci-St	EbN					−1.4
	10			EbN	1.2	53.9	−5.7	2.2	75	10	St-Cu	EbN	*°				−1.4
	2			EbN	1.0	52.6	−4.7	2.5	79	10	Nb	EbN	*°				
	6			SWbS	5.8	50.6	−4.5	2.3	72	9	Ci-Cu	W	*°				
	10			SWbS	7.9	48.6	−3.8	2.7	80	10	Nb	SWbS	*				
9	2			SWbS	12.2	46.2	−2.9	2.8	76	10	Nb		*	2			
	6			SWbS	4.5	46.4	−2.5	3.3	87	10[2]			*[2]			o	
	10			SWbS	8.1	44.4	−2.4	3.2	83	10	St-Cu	SWbS	*°				−1.4
	2			SWbS	6.4	43.6	−2.2	3.3	85	10	Nb	SWbS	*°			o	
	6			SWbS	3.3	43.3	−2.1	3.2	81	9	Nb	SWbS	*°			[illegible]	
	10			SWbS	3.2	43.5	−3.4	3.0	85	10	Nb	SWbS	*°			o	
10	2			NbW	7.0	45.0	−5.0	2.4	76	10	Nb		*				
	6			NNE	9.2	46.8	−6.8	2.0	75	7	Ci-St	NNE	*°				
	10			NNE	6.4	47.5	−6.3	1.9	66	9	St	NNE					−1.4
	2			NNE	4.5	47.6	−5.9	1.9	67	9	St	NNE					
	6			NNE	11.2	47.8	−6.4	1.7	61	10	St	NNE					
	10			NNE	4.2	48.4	−6.8	2.0	73	10	Nb	NNE	*°				
11	2			NNE	6.7	49.2	−5.4	1.8	61	10	St	NNE					
	6			NNE	7.1	49.3	−5.6	2.0	67	10	St-Cu	NNE	*°				
	10			NWbN	6.8	48.0	−7.2	2.2	84	10[2]	Nb		*°				−1.4
	2			NWbN	6.9	47.4	−6.2	2.2	79	10	Nb		*°				
	6			NNE	3.5	47.8	−6.1	2.3	82	10	*Nb*	NNE	*				
	10			NWbN	4.1	49.7	−6.2	2.2	76	9	Nb	NWbN	*°				
12	2			NWbN	5.5	49.9	−6.6	1.9	70	8	St-Cu	NWbN					
	6			NWbN	5.3	50.9	−7.5	1.9	75	9	St-Cu	NWbN					
	2			NNE	3.3	51.8	−8.8	1.7	72	0-1	Ci	NNE					−1.4
	6			NNE	2.5	51.4	−9.6	1.6	74	0							
	10			NE	5.4	51.2	−10.0	1.5	74	0							
13	2			WbN	3.1	51.8	−11.5	1.4	78	0-1	Ci	WbN					
	6			WbN	3.8	51.6	−1.0	1.5	76	3	Ci	NNE					
	10			WbN	4.2	51.0	−7.8	1.8	72	2	Ci	NNE					−1.4
	2			WbN	5.2	51.2	−8.8	1.7	72	0							
	6			WbN	2.3	51.4	−10.4	1.3	67	0							
	10			WbN	2.1	52.1	−11.8	1.4	71	0							
14	2				0	52.9	−13.4	1.1	72	0							
	6				0	54.7	−13.0	1.3	76	0							
	10				0	55.2	−9.2	1.2	53	0							−1.4
	2				0	55.8	−10.2	1.5	73	0							
	6				0	56.5	−12.4	1.3	73	0							
	10				0	56.9	−13.6	1.2	75	1	Ci						
15	[illegible]				0	57.2	−15.0	1.0	73	0							
	6			WbN	1.3	58.1	−14.9	1.0	73	0							
	10			WbN	1.0	58.1	−13.0	1.2	72	0							−1.8[3]

[1] Compact drift-ice in the harbour — [2] Heavy snow-drift. — [3] The thermometer Küchler No. 3 for measuring the temperature of sea surface is broken Küchler No. 12, corr. 0.0, taken in use.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 15	2	Rice	Strait	WbN	1.0	758.9	— 11.0	1.5	76	0						
	6			WbN	1.0	58.5	— 14.0	1.1	75	0						
	10			WbN	1.0	57.9	— 14.6	1.0	69	0						
16	2			NWbN	1.0	57.6	— 15.0	0.9	68	0						
	6			NWbN	2.2	57.5	— 12.7	1.2	73	1°	Ci-Cu					
	10			NWbN	2.2	56.6	— 11.1	1.4	72	10°	Ci-Cu	NbW	*°			— 1.8
	2			WbN	1.8	56.0	— 10.4	1.5	77	8°	Ci	NNE				
	6			WbN	4.2	56.3	— 8.5	1.6	70	8°	Ci-Cu	NWbN				
	10			NWbN	1.6	56.2	— 11.2	1.3	68	9°	St-Cu	NWbN				
17	2			WbN	1.7	55.8	— 8.8	1.8	78	10°	Nb					
	2			WbN	1.3	55.9	— 9.0	1.8	78	10	Nb		*°			— 1.8
	10			WbN	3.1	55.2	— 9.2	1.7	78	10^2	Nb		*°			
	2			WSW	5.6	53.8	— 9.6	1.7	78	10	Nb	EbN	*°			
	6			WSW	5.5	52.3	— 10.0	1.5	71	10	Nb	EbN				
	10			WSW	7.2	51.4	— 10.2	1.4	70	0						
18	2			NWbN	4.8	49.7	— 13.0	1.4	84	0						
	6			NWbN	6.1	49.7	— 11.5	1.3	71	1	Ci	NNE				
	10			NWbN	3.5	48.6	— 9.5	1.3	62	0						— 1.8
	2			WbN	5.8	48.8	— 9.8	1.2	58	0						
	6			WbN	3.4	50.5	— 10.4	1.3	64	6°	Ci					
	10			WbN	5.7	51.7	— 10.2	1.4	70	8°	Ci					
19	2			W	1.3	52.1	— 9.7	1.6	74	10°	Nb					
	6			W	2.2	54.8	— 9.4	1.6	72	10°	Nb	WbN				

1899 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 24	8	78° 53′	74° 52′	N	1.7	754.5	2.4	5.0	91	10	Nb		●∗° [1]			
	4	41	30	NE	5.2	53.9	4.4	4.5	73	10	St					
	8	41	30	NE	3.8	53.8	4.8	4.5	70	10°	St-Cu					
	Midt.	41	30	NE	12.0	52.5	4.0	4.1	61	10	St					
25	4	41	30	NE	3.2	52.7	3.8	4.0	67	10	St					
	8	46	57	NE	1.4	53.1	4.0	4.9	80	10	St-Cu		[2]			
	Noon	Rice	Strait	NNW	2.1	51.6	6.7	5.5	76	7°	Ci-St					
	4			NW	1.8	50.8	5.8	5.2	76	3°	Ci-St					
	8			NE	2.8	50.4	4.9	5.2	79	10°	St-Cu					
	Midt.			N	3.0	49.3	3.1	5.2	91	10°	St-Cu					
26	4			NE	1.2	49.5	1.5	4.5	87	10	St					
	9			W	2.4	50.5	2.7	4.4	79	10	St-Cu					
	Noon			SSW	2.0	51.0	4.1	5.5	90	10	St-Cu					
	4			SSW	3.4	51.8	2.9	4.5	79	10	St-Cu					
	8			SSW	4.4	52.8	2.6	4.7	84	10	Nb					
	Midt.			SW	3.5	53.8	1.7	4.6	90	10	Nb		●° [3]			
27	5			SW	4.6	53.6	1.6	4.5	87	8	St	W				
	8			S	3.4	53.5	2.0	4.6	87	10	St-Cu	W	[4]			
	Noon			SSW	3.8	52.3	3.6	5.0	85	10	St-Cu	W				
	4			S	7.0	50.8	2.4	4.6	84	10	Nb					
	8			S	7.0	50.0	2.4	4.6	84	10	Nb					
	Midt.			S	7.8	49.4	1.9	4.3	82	10°	St-Cu	N				
28	4			SSW	8.5	50.0	1.8	4.9	93	10	St	S				
	9			SSW	1.5	52.1	1.9	5.3	100	10	Nb		●∗°			
	Noon			SSW	4.2	52.9	2.2	5.1	94	10	Nb		●∗			
	4			SSW	3.8	53.3	2.3	5.0	93	10	Nb		●∗			
	8				0	54.7	2.9	5.0	88	10	Nb		●			
	Midt.				0	55.1	3.0	4.8	85	10	Nb		●			
29	4				0	55.3	2.8	4.8	86	8	Ci-St					
	8			NE	1.9	56.9	3.0	5.3	93	10	Nb		●°			
	Noon			NW	2.2	58.1	2.5	4.8	87	10	Nb		●°			
	4				0	58.9	3.0	5.3	93	10	Nb		●°			
	8				0	59.6	3.2	4.8	83	10	St					
	Midt.				0	59.5	3.8	4.4	73	10	St					
30	4				0	60.1	2.9	5.0	85	9	Ci-St	S				
	Noon			W	2.2	60.5	6.9	5.9	80	9	St-Cu					
	4			W	1.2	59.8	6.8	5.0	68	1	Ci					
	10			NW	1.4	59.8	5.9	5.6	81	1°	Ci-St					
	Midt.				0	58.3	3.9	5.3	87	1°	Ci-St					

[1] 6.30 a. m. Fram left the winterhaven. 10.30 a. m. anchored south of Bedford Pim Island. — [2] Again in the winterhaven. — [3] Fog over the glacier. — [4] Fog over the glacier. Item noon, 4 p. m. and midnight.

SEA-OBSERVATIONS.

1899 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 31	4	Rice	Strait		0	757.7	5.4	5.3	78	4°	Ci-St	S				
	8				0	56.8	6.7	5.7	78	4°	Ci-St					
	Noon			W	3.2		4.3	5.1	82	2°	Ci					
	4			S	4.0	55.5	8.0	4.5	57	2°	Ci	S				
	8			SSW	4.1	55.3	5.7	4.2	61	6°	Ci-St	S				
	Midt.			SSW	3.6	56.6	7.0	3.7	49	8°	Ci	S				
Aug. 1	4			S	5.6	56.1	8.8	4.0	48	2	Ci-St	S				
	9			S	8.9	57.6	7.8	5.2	65	2	St	S				
	1			S	12.5	58.7	5.0	4.8	74	4	St	S				
	4			S	12.3	58.9	7.2	5.3	70	4	St	S				
	8			S	11.2	59.8	5.2	5.2	78	5	St	S				
	Midt.			S	8.2	61.1	3.2	4.7	81	7	St-Cu	N				
2	4			S	4.1	63.5	1.8	5.1	96	10°	St-Cu	SW				
	8			S	6.7	64.3	2.3	4.7	85	10	St-Cu					
	Noon			SW	5.3	64.9	4.3	4.8	77	8°	St-Cu					
	4			SSW	8.0	64.4	3.3	4.4	76	3°	Ci-St	SW				
	8			SW	5.3	64.3	3.5	4.4	75	9	St-Cu					
	Midt.			W	4.1	64.4	1.3	4.7	92	7	St-Cu					
3	4			SSW	11.6	65.3	0.2	4.6	98	7°	St-Cu	S				
	8			SSW	5.0	65.8	2.5	4.8	87	8	St-Cu	SW				
	Noon			SSW	4.7	65.3	3.9	5.1	84	9	St-Cu					
	4			S	7.2	64.6	7.0	5.5	74	5°	St-Cu	S				
	8			S	5.9	64.0	5.1	4.5	69	2°	Ci-St					
	Midt.			SSW	2.2	63.7	3.9	4.1	67	4	St-Cu					
4	4			NE	1.3	65.1	2.8	4.4	77	5°	St-Cu	SW				
	9			SW	1.0	66.0	3.4	4.5	76	3°	St-Cu	SW				
	Noon			SW	6.4	66.5	4.3	4.5	73	5°	St-Cu	SW				
	4	78° 46′	74° 57′	SW	6.8	66.8	4.5	4.7	74	8°	St-Cu					
	8.30	78 47	74 35	SSW	1.7	68.4	4.3	5.2	84	7	Ci-St		1			
	Midt.	78 50	74		0	67.9	— 0.1	4.1	90	5°	St-Cu					
5	4.30	78 50	74	SE	2.9	68.5	— 0.9	3.9	90	2°	St		≡			
	8	78 52	74	N	1.8	69.0	2.4	3.5	65	0			≡°			
	Noon				0	68.9	2.6	4.8	87	1-2°	Ci-StSt-Cu					
	4	78 52	74		0	68.9	2.4	4.5	82	3°	Ci-St					
	8	78 53	74	NW	2.2	69.2	1.9	4.6	88	5°	Ci-St					
	Midt.	79	74	S	5.6	69.9	0.6	4.1	85	6	Ci-St					
6	4			SW	8.9	71.5	1.3	4.5	89	9	St-Cu					
	8			S	11.8	72.3	1.4	4.7	93	10	St-Cu					
	Noon	79 10	73 20	SSW	8.4	72.6	1.4	4.8	94	10°	St					
	4			S	13.4	72.8	1.4	4.8	94	10°	St	S				
	8			S	12.4	72.5	0.5	4.6	96	10	St	S	∞			
	Midt.			SSW	10.8	72.3	0.5	4.6	96	10	Nb	SSW	∞			

7	4			SSW	11.7	72.1	− 0.2	4.3	94	10	Nb	SSW	∞		
	8			SSW	10.8	72.0	0.6	4.4	92	10²	St		∞		
	Noon	79 25	72 30	SSW	14.5	70.5	0.6	4.5	94	9	Nb	SSW	∞		
	4			SSW	10.5	70.5	0.6	4.5	94	10	Nb	SSW	∞		
	8			SSW	9.5	70.0	0.4	4.4	92	10	Nb	SSW			
	Midt.			SSW	7.5	68.2	0.0	4.3	94	10	Nb	SSW			
8	4			SSW	5.8	68.7	0.7	4.2	87	9	St				
	8				0	67.9	1.7	4.1	78	10	St-Cu				
	Noon	79 25	72 30	N	1.0	67.8	1.1	4.8	96	10	St-Cu				
	4			NW	3.2	67.2	1.0	4.7	94	9	St-Cu				
	8			NW	3.8	66.7	1.9	4.8	91	9	St-Cu				
	Midt.	79 8	72 40	NW	2.3	66.4	1.6	5.1	98	9	Nb				
9	4			N	1.6	65.8	1.6	4.6	89	9	St-Cu				
	8			N	1.8	66.4	2.1	4.8	89	10	St-Cu				
	Noon	79 0	73	N	1.8	66.2	3.1	4.9	87	6	Ci-St				
	4	78 52	73 15		0	66.7	4.2	5.2	84	10	St-Cu				
	8				0	66.8	3.3	5.4	93	10	St-Cu				
	Midt.	78 50	73		0	66.6	2.3	4.9	91	7°	Ci-St				
10	4	78 40	73	NNE	1.7	66.9	1.0	4.6	92	8°	St-Cu				
	8				0	67.0	2.3	5.1	94	4	Ci-St				
	Noon	78 30	73		0	66.2	1.4	4.6	91	0			[2]		
	4			N	4.9	64.2	1.6	4.8	89	0					
	8			NNE	5.3	61.9	8.8	4.8	56	0					
	Midt.	78 20	72 40	NE	6.7	60.0	6.3	2.9	41	0					
11	Noon			N	9.0	54.9	8.4	4.4	54	7°	Ci-St				
	4			N	8.8	55.4	8.4	4.7	57	8°	Ci-St				
	8			N	6.0	56.4	7.6	5.1	65	7°	Ci-St				
12	1			N	2.6	57.7	6.9	5.8	79	4°	Ci				
	4			NNE	6.6	58.7	6.2	3.9	55	5°	Ci-St				
	8			S	8.7	62.6	1.6	4.6	89	6°	St-Cu				
	Midt.	78 25	74	SSW	4.9	62.3	0.5	4.5	94	4	St				
13	4			SSW	5.5	61.4	1.1	4.6	92	5	St-Cu	S			
	8				0	61.7	1.5	4.7	93	9	St-Cu	SE			
	Noon	78 25	74	SW	2.3	61.3	1.2	4.7	94	10	St				
	4			NNW	4.9	60.2	1.2	4.6	92	10	St-Cu				
	8			N	6.3	59.4	1.1	4.4	89	10	St				
	Midt.	78 25	73 40	N	6.4	58.9	0.8	4.7	96	10	Nb	N	◍ ✱ [3]		
14	4			N	4.7	58.9	0.6	4.7	98	10²	Nb		◍°		
	8			N	5.6	58.7	1.3	4.8	96	10²	Nb		◍°		
	Noon	78 20	73 30	N	5.0	58.5	0.8	4.8	98	10²	Nb		◍°		
	4			N	2.0	58.1	2.0	4.9	93	10²	Nb		◍°		
	8			N	3.0	59.1	2.7	5.3	94	10²	Nb		◍° [4]		
	Midt.	78 20	73 20		0	59.1	1.8	5.1	96	10	Nb		◍ & ≡		
15	4			S	5.0	59.4	2.2	5.1	94	10	Nb	S	◍° [5]		

[1] 7.30 p. m. Fram left the winterhaven. — [2] Slipped out of the ice into Kane Basin. In open water to Foulkefjord. — [3] Fast to the ice edge. — [4] Going. — [5] Fast. 6 a. m. steered SE in open water. Kept it going, slowly working against the wind. Along the icefoot to S. From noon beating in the pack, now and then moored to the ice. From midt. mostly lying still, moored to the ice unto the 18th, 4 a. m.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 15	8	78° 15′	73° 10′	S	8.3	760.8	2.1	5.1	94	10	St-Cu					
	Noon	78 10	73 30	S	1.0	61.4	2.7	5.3	94	10	St-Cu		∞			
	5			S	3.3	61.9	1.7	5.0	96	9	Nb		●°			
	8			SWbS	2.1	61.9	1.2	4.8	96	10^{2}	Nb					
	Midt.				0	61.7	0.7	4.7	98	10^{2}	Nb		● *			
16	4			SW	2.1	61.9	0.4	4.6	98	10	Nb		● *			
	8			SW	4.0	62.0	0.7	4.7	98	10	Nb		● *			
	Noon	78 3	73 30		0	61.1	1.9	5.0	95	10	Nb		●°			
	4				0	60.0	2.1	5.1	94	10	Nb		●°			
	8				0	60.0	3.0	5.5	96	10	Nb		●°			
	Midt.			SbE	1.3	58.9	0.4	4.6	96	10^{2}	Nb		● *			
17	4			SSE	6.6	58.6	0.5	4.7	98	10	Nb		● *			
	8			NNW	7.2	60.0	0.5	4.8	100	10^{0}	Nb		∞			
	Noon	77 56	73 30	WSW	3.7	60.6	1.0	4.8	98	9	Nb					
	4			SW	2.8	60.3	1.0	4.6	92	8	St-Cu					
	Midt.				0	60.0	1.6	4.9	94	8	St-Cu					
18	4				0	60.8	0.4	4.6	96	10	St-Cu		[1]			
	8			N	3.5	61.2	— 0.2	4.4	96	10	Nb		≡°			
	Noon	77 49	73 30		0	62.1	1.8	4.9	93	10	St		≡°			
	4				0	62.3	1.2	4.6	92	10	St		≡°			
	8			S	1.0	62.3	0.4	4.6	96	10	St		≡°			
	Midt.				0	63.0	0.2	4.6	98	10	St					
19	4			SW	3.3	64.0	1.8	4.8	91	7_{0}	St-Cu					
	8			SSW	2.5	64.1	1.9	5.0	95	10^{0}	St-Cu					
	Noon	77 42	73 30	S	1.0	63.4	3.7	5.4	90	6	St-Cu		[2]			
	4			S	3.7	63.9	2.6	5.0	91	5_{0}	Ci & St					
	8			SSW	3.8	63.3	0.8	4.6	94	10^{0}	Ci-St					
	Midt.			S	1.0	62.4	0.9	4.6	94	4^{0}	Ci-St					
20	4				0	63.1	— 1.1	3.6	79	2^{0}	Ci-St		≡° [3]			
	8				0	63.4	0.2	4.3	92	4^{0}	Ci-St		≡°			
	Noon	77 35	73 30		0	63.2	1.2	4.7	94	10	St		≡°			
	4				0	63.0	0.6	4.5	94	10			≡°			
	8				0	62.1	0.4	4.6	96	7	St-Cu					
	Midt.			NNE	2.4	61.6	— 0.4	4.3	96	8	St-Cu					
21	4			NE	3.6	61.3	— 0.4	4.2	94	3^{0}	Ci-St		[4]			
	8			NNE	4.4	61.2	0.3	4.5	96	8^{0}	Ci-St					
	Noon	77 28	73 30	NW	5.2	61.4	0.2	4.3	92	4^{0}	Ci-St					
	4			NNE	4.2	61.7	2.5	4.9	89	6^{0}	Ci-St					
	8			N	1.3	63.0	1.1	4.9	90	6^{0}	Ci-St					
	Midt.	77 24	73 30		0	62.9	0.8	4.7	96	7^{0}	St-Cu		[5]			
22	4			NNE	3.7	63.8	0.6	4.5	94	10^{0}	Ci-St		[6]			
	8			NbN	1.3	64.1	2.7	5.2	93	7^{0}	Ci-St		[7]			
	Noon	77 20	73 30	N	1.8	63.5	2.6	5.1	93	9^{0}	Ci-St					

	Midt.	77 15	74 30	NNE	7.2	62.1	2.1	4.4	82	8	St			8		
23	4	76 50	75 30	NNE	4.6	61.4	2.5	5.0	91	2°	St	N		9		0
	8	76 35	76 30	N	2.6	61.3	1.8	4.7	90	7°	Ci			10		
	4	76 6	78 30	NEbN	3.6	63.4	3.5	5.5	93	2	Ci-St					2
	Midt.	75 50	78 0	NEbE	3.6		3.6			10			≡°	11		2
24	4	75 42	77 45	ESE	2.7		3.5	5.8	98	10^2	Nb		●°	12		2
	8	75 35	77 30	ESE	3.4		3.9	5.6	92	10	Nb		●°	13		2
	Noon	75 27	77 53	SWbS	5.5		3.5	5.4	92	10	St-Cu					2
	4	75 35	79 30	SbE	8.1		2.3	5.0	93	8	St-Cu	W				2
	8	75 58	81 20	S	9.5		2.0	4.6	87	6	St-Cu	S		14		1·2
	Midt.	76 5	82	SbW	12.3		0.9	4.5	92	9_2	St			15		
25	4			SbW	*14.3*		0.8	4.7	96	9	Nb	SbW				3
	8			S	*16.1*		0.0	4.3	92	10	Nb			16		
	1			SSW	*16.1*	57.8	2.2			10	Nb			17		3
	4			SbW	*13.3*		0.6			8	St-Cu					2
	8.30			SSW	*14.8*		0.4	4.1	87	8	St-Cu					
	Midt.	76 10	82	SW	*14.1*		0.2	4.3	92	8	Nb					3
26	4			SW	*16.8*	55.6	— 0.6	4.0	90	9^2	St					2
	8			SSW	9.3	56.7	1.7	4.2	82	10°	St-Cu					
	Noon	76 16	81 30	SbW	2.8	56.7	2.4	4.5	80	10°	St-Cu			18		0
	8			NW	3.4	56.9	5.0	3.8	58	9^2	St-Cu			19		0
27	8	76 20	81 0	SSE	4.4	57.8	4.4	3.7	59	10	St-Cu					
	Noon	76 20	81 0	SSE	7.9	57.9	4.5	3.0	57	10	St-Cu					
	4			SSE	8.7	58.8	4.4	5.0	80	10	St-Cu					
	8			SSE	5.2	59.1	5.0	3.7	57	9°	St-Cu					
28	4			S	6.1	58.6	4.8	4.0	62	10	St	SW				
	8			SSE	7.7	58.1	6.3	6.2	87	10	St-Cu	SW				
	Noon	76 20	81 0	SSE	7.9	54.7	5.9	4.6	66	10	St-Cu	S		20		
	4.30			SSW	5.5	55.2	5.0	4.2	64	9	St-Cu					
	8			S	3.6	55.0	5.1	3.8	58	8	St-Cu					
	Midt.	76 20	81 0	S	5.7	54.8	5.2	5.6	84	10	St-Cu					
29	5	76 18	81 15	NbW	7.3	55.4	— 0.2	4.4	96	7°	Ci-St		≡	21		
	8				0	55.6	1.1	4.6	92	8°	Ci		≡			
	Noon	76 12	81 30	E	1.7	55.8	2.7	4.7	84	0			≡	22		
	4			NW	1.5	56.3	— 0.2	4.2	92	10			≡			
	8				0	56.4	0.4	4.1	87	10°	Ci		≡°			

[1] Went ENE for finding way up to large lanes in north. 6 a. m. eastwards, but stopped soon again and lay still two hours owing to the screwing pack, whereon going in slackening ice towards noon. On afternoon mostly lying still. — [2] From 11 a. m. E in two hours, then N. to 3.30 p. m., when stopped. Recommenced soon the working northwards in still more slackening ice to 9 p. m., when we came into close pack. — [3] Kept it going N, at small intervals, but did hardly advance against the stream, that ran strongly southwards. Going at intervals, but little progress. — [4] 1.30 a. m., eastwards in close ice and southerly stream. Stopped and lay still throughout the day, when the stream was running southwards at varying speed. — [5] At midt., out of the most compact ice. — [6] 2 a. m. S in slack ice. — [7] 10 a. m. stopped for catching. — [8] 8 p. m. made sails and beated in the ice. — [9] Scattered ice around. — [10] 7 a. m. moored to close, unbroken ice. 9 a. m. going again in southerly direction. — [11] 5 p. m. sighted Double Cone Rock in true WNW$^1/_2$ W, 30 miles off, guessed. — [12] The barometer cannot be read owing to the rolling. — [13] 10 a. m. land insight. — [14] 8 p. m. sighted Cone Island in true N, 14^m guessed. — [15] 11 p. m. close ice ahead. — [16] 7 a. m. open sea. 8 a. m. sailing by the wind, beating. The anemometer out of order. — [17] The other thermometer broken. The anemometer under repair. — [18] Fog and scuds in Jones Sound. 10 a. m. steered to the shore for sail and steam, into the Fram Fjord, where the anchors were dropped inside Cone Island. — [19] At anchor. — [20] Barometer No. 764 from now and farther on. — [21] 2.30 a. m. out the Fram Fjord. — [22] Fast in the ice.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 30	4	76° 5′	84° 30′	NNE	3.2	755.3	0.7	4.6	94	10	Nb		●✱			
	8				0	55.6	2.6	5.2	94	10			●✱ [1]			
	Noon	76 18	84	NbW	4.5	55.5	0.5	4.5	94	10	Nb		●✱°			
	5			NWbN	4.0	56.3	0.8	4.4	90	10			●✱°			
	8			WNW	1.9	56.1	1.8	4.6	88	10			●° [2]			
	Midt.			NW	1.2	56.3	0.4	4.4	92	10	Nb		[3]			
31	4				0	55.8	0.2	4.3	92	10			≡° [4]			
	8			NE	1.6	56.7	0.4	4.5	94	10²	Nb		●°&≡ [5]			
	Noon	76 0	83 30		0	54.8	2.7	4.9	87	10	Nb		●°&≡° [6]			
	4			NE	1.7	54.4	1.7	4.8	93	10	Nb		●° [7]			
	8				0	54.1	1.7	4.7	91	10	Nb		●°			
	Midt.			S	2.2	54.1	0.4	4.6	96	10			●°&≡° [8]			
Sept. 1	4			WSW	2.4	55.4	0.1	4.5	98	10²	Nb		≡			
	8				0	55.9	1.0	4.7	96	10²			≡&✱° [9]			
	Noon	76 20	84	N	1.5	56.8	1.5	4.9	96	10	Nb		≡ [10]			
	8	76 29	84 4	ESE	1.5	57.2	1.7	4.6	90	10	Nb		≡°&●° [11]			
2	8	Havnefjord			0	57.4	1.5	4.8	94	10	Nb		≡°&✱°			
	Noon				0	57.8	1.6	4.8	93	10	Nb		≡°&✱°			
	4			SE	2.0	58.1	2.4	4.7	85	10	Nb					
	Midt.			SE	2.5	58.5	1.8	4.7	90	10	Nb					
3	4				0	58.4	1.1	4.4	89	10	Nb					
	8.30			NW	2.1	57.1	1.2	4.1	82	10	Nb					
	Noon			NW	4.2	57.0	1.3	4.5	89	10	Nb					
	8				0	56.2	0.8	4.4	90	9°	Ci-St					
	Midt.			NW	2.2	55.2	0.0	4.3	94	10						
4	4			WbN	4.8	55.9	−1.3	3.8	90	10			≡			
	8				0	56.0	−0.1	4.4	96	10	Nb					
	Noon				0	55.5	0.6	4.1	85	10	Nb					
	4.30			SW	3.7	54.9	0.3	4.1	87	10	St-Cu					
	8				0	53.6	0.0	4.3	94	10	St-Cu					
	Midt.				0	52.8	1.2	4.1	82	10	Nb		●✱°			
5	4				0	52.1	−1.2	3.8	90	10	Nb		✱			
	8				0	50.7	−0.5	4.3	98	10	Nb		✱			
	Noon				0	49.1	−0.6	4.1	92	10	Nb		✱			
	4				0	46.9	−0.1	4.3	94	10	Nb		✱°			
	8			S	4.7	44.6	2.2	3.8	72	10	Nb					
	Midt.			S	1.0	42.9	3.4	3.7	63	10	Nb					
6	4			SSW	3.0	41.4	3.0	3.7	66	10	Nb					
	8			SSW	8.4	41.6	2.5	3.9	70	10	Nb		✱°			
	Noon			SSE	7.0	42.6	3.5	3.9	67	10	St-Cu	WSW				
	4			SSE	6.0	44.5	3.6	4.7	80	10	St-Cu	WSW				
	8			WSW	1.7	45.3	2.8	3.9	69	10	St-Cu	SSW				
	Midt.				0	45.8	1.1	3.6	70	8	St-Cu					

7	4.30		0	47.1	2.3	3.5	65	7°	St-Cu		
	8	SSE	9.2	47.2	1.8	3.5	67	1°	St		
	Noon	SSE	2.8	48.1	4.0	3.3	53	9	St-Cu		
	4	SSE	6.8	48.1	4.3	3.3	52	5	St-Cu		
	8	E	4.2-8.5	48.2	3.8	3.2	62	10	St-Cu		[12]
	Midt.	ESE	7.9	47.6	4.5	3.6	57	10°	Nb		◍°
8	4	NW	3.1	47.5	3.1	4.6	81	5	Ci		
	8	NE	4.0	47.5	4.1	4.2	69	10	St-Cu		
	Noon	S	1.5	47.7	3.5	4.6	78	10	Nb		◍✱°
	4		0	47.7	0.6	4.6	96	10	Nb		✱°
	8	W	4.2	49.0	0.5	4.3	90	10	Nb		
	Midt.	SE	10.4	49.9	0.9	4.8	98	6	St-Cu	W	
9	4	SW	1.2	49.3	0.6	3.7	78	7	St-Cu		
	8	NE	2.0	49.3	1.5	3.1	61	6	St-Cu		
	Noon	S	1.4	48.1	1.0	4.0	81	8	St		
	4		0	47.9	1.1	3.4	66	4	Cu		
	8	N	1.5	47.3	— 1.1	2.7	65	3	St-Cu		
	Midt.		0	46.3	— 1.2	3.2	76	8	Ci-St		
10	4		0	46.1	— 2.1	2.9	75	3°	St		
	8		0	46.6	— 1.1	3.6	84	10	Nb		
	Noon	W	2.0	47.0	— 1.2	3.1	74	10	Nb		✱°
	4		0	49.2	— 2.1	2.9	75	10	Nb		✱°
	8	W	2.9	51.5	— 4.5	2.3	72	10	Nb		
	Midt.	S	2.6	52.6	— 3.2	2.5	70	10	Nb		✱°
11	4	ENE	2.1	54.4	— 4.5	2.3	70	10^{2}	Nb		✱°
	8	NE	2.1	55.8	— 4.6	2.2	70	9	St		
	Noon	W	2.5	56.6	— 4.1	2.4	70	10^{2}	Nb		✱°
	4	W	3.0	57.8	— 4.2	2.3	70	10	Nb		✱°
	8	W	3.9	58.3	— 5.6	2.2	73	10^{2}	Nb		✱°
	Midt.		0	58.4	— 6.1	2.2	77	10			≡°
12	4		0	58.6	— 6.2	2.5	87	10	Nb		✱°
	8		0	58.3	— 5.6	2.5	82	9°	Nb		✱°
	Noon		0	58.0	— 4.5	2.5	77	8°	Ci-St		
	4		0	59.0	— 3.6	2.7	78	4°	Ci-St		
	8		0	59.5	— 5.6	2.0	67	10°	St		
	Midt.		0	59.7	— 5.3	2.0	68	10	St		
13	4		0	60.3	— 5.4	2.1	71	10	Nb		✱°
	8	W	2.7	61.0	— 4.7	2.4	74	10	Nb		✱°
	Noon		0	61.4	— 3.7	2.8	80	10	Nb		
	5		0	61.5	— 4.1	2.7	79	10	Nb		✱°
	8		0	61.3	— 4.4	2.6	79	10	Nb		✱°
	Midt.		0	60.0	— 5.7	2.1	70	10	Nb		✱°
14	4	SW	2.8	58.7	— 6.0	2.1	74	10	St		✱°
	8	WSW	1.7	57.2	— 5.1	2.0	66	10	Nb		✱°

[1] 5.30 a. m. recommenced going. — [2] 6. 30 p. m. moored. — [3] Going southeastwards along the edge of the pack. — [4] Fast. — [5] Going ESE towards land, little progress. — [6] Fast in the pack. — [7] About 2 hours towards open water in a fjord. No progress. — [8] Fast. — [9] 5 a. m. a little eastwards in slack ice, but obliged to stopp on account of dense fog. — [10] 10 a. m. going again and kept it working at intervals through the pack, that slackened still more. — [11] Kept it going in a fjord, where we anchored, at 7.30 p. m. in Havnefjord, our second winter harbour. — [12] The wind squally; measured during the squalls and between them.

SEA-OBSERVATIONS.

1898 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 14	Noon	Havnefjord			0	755.8	-5.6	2.2	73	10	Nb					
	4				0	55.4	-5.1	2.3	76	10^{2}	Nb		$\ast^{\circ}$			
	8				0	55 7	-4.7	2.4	74	10^{2}	Nb		$\ast^{\circ}$			
	Midt.				0	56.1	-5.7	2.4	80	10	Nb					
15	4			W	2.3	56.7	-5.4	2.1	68	10	Nb					
	8				0	57.2	-5.4	2.5	83	10	Nb		$\ast^{\circ}$			
	Noon				0	57.6	-4.1	2.9	87	10	Nb		$\ast^{\circ}$			
	4				0	57.6	-4.4	2.6	79	10	Nb		$\ast^{\circ}$			
	8				0	57.1	-4.6	2.3	72	10	Nb					
	Midt.			NW	1.4	56.1	-3.8	2.3	66	9	St-Cu					
16	4			S	2.0	55.2	-3.2	2.6	74	10	St					
	8				0	54.5	-3.4	2.7	78	10	Nb					
	Noon				0	54.3	-2.4	3.3	87	10	Nb					
	4				0	54.4	-2.2	3.0	77	10	Nb					
	8				0	54.3	-2.7	2.9	77	10	Nb		$\ast^{\circ}$			
	Midt.				0	54.3	-2.4	3.3	85	10^{2}	Nb		$\ast^{\circ}$			
17	4				0	54.4	-1.5	3.1	76	10	St					
	8				0	54.2	-2.4	3.3	85	10^{2}	Nb					
	Noon				0	54.0	-0.8	3.7	85	10°	St-Cu					
	4				0	53.7	-2.0	3.5	90	10^{2}	Nb		$\equiv \& \ast^{\circ}$			
	8				0	53.0	-2.2	3.5	89	10^{2}	Nb					
	Midt.				0	52.6	-2.6	3.2	85	10	St					
18	4				0	53.1	-3.4	2.9	82	10	St-Cu					
	8				0	53 1	-3.1	3.1	85	10	St-Cu					
	Noon				0	53.8	-1.8	3.7	92	10	St-Cu					
	4				0	54.6	-2.2	3.3	85	10	St-Cu					
	8				0	55.0	-3.0	2.9	80	10°	St-Cu					
	Midt.				0	55.9	-3.2	2.8	78	10°	St-Cu					
19	4				0	56.8	-3.2	2.9	80	10	Nb					
	8				0	57.6	-2.5	2.8	74	10	St-Cu					
	Noon			SSE	7.4	58.2	-3.0	2.4	66	7°	Ci					
	4			SE	4.2	58.8	-3.7	1.8	51	2°	Ci-St					
	8			SE	3.1	59.3	-4.5	1.7	54	2°	Ci-St					
	Midt.				0	59.2	-6.7	1.9	70	0						
20	4			SE	5.7	59.4	-4.6	2.5	79	2	Ci					
	8				0	59.1	-3.6	2.0	58	10	St					
	Noon				0	59.0	-3.3	2.2	63	10°	St					
	4			SSW	1.6	59.2	-4.6	1.9	60	10	St		$\ast^{\circ}$			
	8				0	59.9	-5.7	2.2	75	10^{2}	Nb					
	Midt.			SW	3.4	60.1	-6.4	1.4	50	7°	Ci	ENE				
21	4			S	1.4	60.4	-7.2	1.5	56	8	Ci	NW				

	8			SE	3.3	61.8	— 7.1	1.6	59	10°	Ci-Cu			
	Noon				0	62.2	— 5.6	1.9	63	8°	Ci-St			
	4			SE	2.1	62.7	— 5.1	1.8	59	7°	Ci-St			
	8				0	63.4	— 6.7	1.6	60	6°	Ci-St			
	Midt.			NE	1.6	63.8	— 7.4	1.6	64	9	Ci-St			
22	4			NE	1.3	64.1	— 7.0	1.6	59	10	Ci-St			
	8			WNW	1.6	65.3	— 6.8	1.8	65	10	St-Cu		*°	
	Noon			N	1.7	65.6	— 6.8	2.2	81	10	Nb		*	
	4				0	66.3	— 7.3	2.1	81	10	Nb		*°	
	8				0	66.3	— 8.1	1.8	74	10	St-Cu			
	Midt.				0	65.5	— 7.5	1.9	75	10	Nb			
23	4				0	64.0	— 7.0	1.9	70	10	Nb			
	8				0	62.3	— 6.4	2.1	74	10	Nb			
	Noon				0	60.4	— 5.6	2.3	77	10	Nb		*°	
	4				0	58.8	— 5.7	2.4	80	10²	Nb		*°	
	8				0	57.9	— 5.4	2.1	68	10²	Nb		*°	
	Midt.				0	56.4	— 5.4	2.2	73	10²	Nb		*°	
24	4			SW	1.7	56.4	— 5.4	2.4	78	10	Nb		*°	
	8				0	55.7	— 5.0	2.4	79	10	Nb		*	
	Noon				0	55.8	— 4.5	2.7	84	10	Nb		*	
	4			W	1.3	55.4	— 4.7	2.7	86	10	Nb		*°	
	8				0	54.7	— 4.8	2.6	84	10	Nb		*°	
	Midt.				0	54.0	— 4.6	2.6	81	10²	Nb		*°	
25	4			W	2.8	53.7	— 4.4	2.3	70	10	St		*°	
	8				0	53.8	— 5.0	2.5	81	10	Nb		*°	
	Noon			WSW	1.2	54.0	— 5.3	2.4	80	10	St-Cu		*°	
	4			WSW	1.0	54.3	— 5.5	2.4	80	10	Nb		*°	
	8				0	54.5	— 5.5	2.5	83	10	Nb		*°	
	Midt.				0	54.5	— 6.9	2.2	84	10	Nb			
26	4				0	54.7	— 7.8	2.1	86	10	Nb			
	8				0	54.3	— 6.3	2.4	84	10²	Nb		*°	
	Noon			ESE	*2.0*	53.7	— 5.0	2.0	64	10²	Nb			[1]
	4			ESE	*2.0*	53.5	— 5.3	1.9	64	10°	St			
	8			SSE	*1.5*	53.0	— 5.8	1.7	57	10	St			
	Midt.			E	*1.0*	53.0	— 6.5	1.7	60	10°	St			
27	4				0	53.2	— 7.8	2.1	81	10°	St			
	8				0	53.2	— 8.6	1.8	79	0-1	St			
	Noon				0	53.6	— 7.1	2.1	81	10	Nb			
	4				0	54.6	— 7.0	2.2	81	10	Nb			
	8				0	54.9	— 6.9	2.2	84	10	Nb			
	Midt.			ESE	1.8	55.7	— 6.4	2.0	71	6	St			
28	4				0	56.9	— 6.8	2.0	75	8°				
	8			NNW	2.1	58.5	— 6.6	1.9	70	9	St-Cu	S		
	Noon				0	59.3	— 5.5	2.4	80	10	St-Cu			
	4				0	60.1	— 6.1	2.0	69	10	St-Cu			
	8				0	60.3	— 7.0	2.1	78	10	St-Cu			
	Midt.				0	59.7	— 8.4	1.9	79	7	St-Cu			
29	4				0	59.4	— 9.9	1.6	74	10				
	8				0	58.0	— 11.5			7°	St		≡°	

[1] Anemometer out of order.

SEA-OBSERVATIONS.

1899 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel m. p. c.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 29	Noon	Havnefjord			0	757.2	— 11.0			10			≡°			
	4				0	57.2	— 13.7			2°	St					
	8				0	56.8	— 12.5			10	St					
	Midt.				0	56.8	— 10.6			10	St					
30	4				0	56.2	— 7.7	2.1	83	10	Nb		*°			
	8				0	57.7	— 8.1			10	Nb		*°			
	Noon				0	58.5	— 10.2			5°	Ci					
	4				0	60.0	— 12.6			8°	Ci-St					
	8				0	60.6	— 11.9			9°	Ci-St					
	Midt.				0	60.8	— 12.3			6	Ci					
Oct. 1	4				0	60.8	— 16.5			0						
	8				0	59.8	— 18.1			0						
	Noon				0	59.9	— 14.5			0						
	4				0	59.7	— 18.4			0-1	St					
	8				0	59.3	— 19.4			2	St					
	Midt.				0	58.5	— 18.9			0						
2	4				0	58.1	— 16.2			10	Nb		*°			
	8				0	57.4	— 15.0			10²	Nb		*°			
	Noon				0	56.7	— 11.5			10	Nb		*°			
	4			SSE	1.0	58.8	— 16.0			0						
	8			E	2.2	61.5	— 18.2			0						
	Midt.				0	63.5	— 22.3			0						
3	8			E	2.5	63.5	— 21.3			5°	Ci-St					
	Noon				0	62.0	— 16.1			0						
	4				0	61.6	— 18.2			3°	Ci-St					
	8				0	61.1	— 18.7			0						
	Midt.				0	60.5	— 18.8			0						
4	4				0	59.5	— 17.2			0						
	8			SSW	6.1	58.8	— 15.0			2°	Ci					
	Noon				0	58.8	— 13.8			2°	Ci					
	4			SSE	6.8	58.6	— 14.9			6°	Ci-St					
	8				0	58.7	— 16.7			1	Ci-St					
5	2			SSW	1.0	59.0	— 17.4			0						
	4				0	59.5	— 18.6			0						
	8				0	60.5	— 18.0			0						
	Noon				0	62.1	— 15.4			0						
	4				0	63.9	— 18.2			0						
	8				0	65.0	— 19.4			0						
	Midt.				0	65.6	— 20.4			0						
6	4				0	66.2	— 20.8			0						
	8				0	65.3	— 19.6			0						

	Noon				0	64.3	— 17.1			0					
	4				0	62.5	— 18.0			1	St				
	8				0	60.4	— 16.6			0					
	Midt.				0	57.3	— 13.6			0					
7	4				0	55.8	— 16.1			0					
	8				0	55.0	— 14.6			0					
	Noon				0	55.3	— 13.6			0					
	4				0	55.8	— 17.6			1°	St				
	8				0	56.4	— 17.7			0					
	Midt.				0	56.1	— 18.0			0					
8	4				0	56.1	— 17.4			0					
	8				0	56.8	— 17.0			0					
	Noon				0	57.2	— 13.8			0					
	4				0		— 14.4			0					
	8				0	58.6	— 15.4			0-1	St				
	Midt.				0	59.5	— 15.6			0					
9	8				0	61.8	— 16.2			1	St				
	Noon				0	63.4	— 13.0			1	Ci-St				
	4			S	4.0	65.1	— 10.7			0-1	Ci-St				
	8				0	66.7	— 14.2			0					
	Midt.				0	67.7	— 14.5			0					
10	4			SW	2.0	69.6	— 12.6			0					
	8			W	2.3	70.7	— 14.6			0					
	Noon				0	71.7	— 14.3			0					
	4				0	72.3	— 15.2			0					
	8				0	73.0	— 15.6			0					
	Midt.				0	72.8	— 16.6			0					
11	4				0	72.5	— 17.7			0					
	8				0	72.6	— 16.6			2	Ci-St				
	Noon				0	71.3	— 14.4			8°	Ci-St				
	4				0	71.4	— 17.3			6°	St				
	9				0	70.8	— 18.4			0					
	Midt.				0	70.5	— 18.0			0					
12	4				0	69.6	— 18.9			0					
	8				0	69.1	— 16.8			10	Nb				
	Noon				0	67.9	— 15.0			9°	Ci-St				
	4				0	65.6	— 14.8			10	Nb		✱°		
	8				0	64.1	— 15.5			10	Nb		✱°		
	Midt.				0	62.4	— 14.9			10	Nb		✱°		
13	4				0	60.0	— 13.5			10	Nb		✱°		
	8			S	2.0	58.8	— 11.0			10	Nb		✱°		
	Noon			S	3.8	57.6	— 11.0			10	Nb		✱°		
	4			S	4.1	57.1	— 11.4			10	Nb		✱°		
	8				0	56.9	— 13.3			5°					
	Midt.				0	56.8	— 15.1			5°	Ci				
14	8				0	58.2	— 15.3			10°			∞°		
	Noon				0	58.4	— 17.4			3°	Ci				
	4				0	56.9	— 20.9			0					
	8				0	56.8	— 21.8			0					
	Midt.				0	56.5	— 22.1			0					

SEA-OBSERVATIONS.

1899 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel m. p. c.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Oct. 15	4	Havnefjord			0	756.2	— 19.6			10	Nb					
	9				0	54.6	— 17.8			10	Nb					
	Noon				0	53.3	— 18.2			10	Nb					
	4				0	53.4	— 17.8			10	Nb					
	8				0	52.8	— 16.4			10°	St					
	Midt.				0	52.5	— 14.8			3	St					
16	4				0	53.5	— 16.4			0						
	8				0	55.6	— 17.5			10°	St					
	Noon				0	56.7	— 15.8			10°	St					
	4				0	57.9	— 17.6			8°	Ci-St					
	8				0	59.4	— 20.6			0						
	Midt.				0	59.6	— 22.0			0						
17	4				0	62.1	— 22.4			0						
	8				0	61.5	— 16.4			3	St					
	Noon				0	61.2	— 18.7			4°	Ci-St					
	4				0	61.5	— 19.6			3°	St					
	8				0	60.6	— 20.5			4°	Ci-St					
	Midt.				0	58.8	— 20.0			10°	Ci					
18	4				0	58.6	— 19.5			6°	Ci					
	8				0	57.4	— 17.8			10	Nb		✱°			
	Noon				0	57.1	— 16.9			10	Nb		✱°			
	4				0	57.5	— 16.6			10	Nb		✱°			
	8				0	57.5	— 17.5			5	Nb		✱°			
	Midt.				0	58.1	— 19.6			0						
19	4				0	58.6	— 22.5			0						
	8				0	59.9	— 22.0			1	St					
	Noon				0	60.9	— 22.2			1°	Ci-St					
	4				0	62.3	— 22.4			0						
	8				0	63.0	— 22.8			0						
	Midt.				0	63.5	— 26.2			0						
20	4				0	64.2	— 25.0			0						
	8				0	65.4	— 20.0			10	Nb					
	Noon				0	66.0	— 21.8			2°	St					
	4				0	67.5	— 22.6			3	St					
	8				0	67.8	— 23.2			0						
	Midt.				0	67.7	— 24.6			0						
21	4				0	68.5	— 23.8			0						
	8				0	68.7	— 26.4			0						
	Noon				0	68.7	— 25.2			3°	Ci-St					
	4				0	69.1	— 25.3			3	St					

	8	0	69.1	— 22.6		10			∞	
22	Midt.	0	69.5	— 21.4		10	St			
	4	0	70.0	— 20.0		10			∞	
	8	0	70.2	— 20.0		10	St			
	Noon	0	70.0	— 17.7		10	Nb		*°	
	4	0	69.6	— 16.8		10	Nb			
	8	0	69.2	— 16.0		10°	Ci-St			
23	Midt.	0	68.8	— 16.5		9°	Ci-St			
	4	0	67.2	— 17.4		10	Ci-St			
	8	0	67.0	— 16.2		1	St			
	Noon	0	65.4	— 15.2		10	St	E		

SEA-OBSERVATIONS.

1900 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 9	4	76° 23'	84° 4'	SEbE	0.7	758.4	1.7	4.1	91	2°	Ci-St		1			— 0.2
	8	17	4		0	58.2	1.0	4.5	90	4	Ci-St					1.0
	Midt.	11	4	WSW	4.5	58.2	1.0	4.4	89	2°	Ci-St					0.3
10	4	7	85 0	NWbN	3.7	58.6	0.5	4.3	90	1	St		2			0.9
	8	7	86 8	NNW	2.6	58.4	0.2	4.7	100	10			≡			0.3
	Noon	7	87 15		0	58.6	3.0	4.6	81	1	St					0.8
	4	7	88 18	SSW	3.9	58.6	2.3	4.9	91	1	St					0.6
	8	7	89 21		0	58.3	0.4	4.5	96	4	St-Cu		3			— 1.4
	Midt.	7	90 28		0	57.8	0.9	4.5	92	10	St		4			— 0.3
11	4	7	28	SE	3.3	58.0	1.5	4.4	85	9²	St-Cu		5			— 0.2
	8	7	28	SW	2.1	57.5	1.9	3.8	73	9°	St-Cu					0.1
	Noon	7	28	SW	2.7	56.8	2.8	4.7	84	9	St-Cu					0.4
	4	7	89 30	WSW	4.2	56.8	1.8	4.8	91	10	St-Cu		6			— 0.5
	8	17	30	SEbS	5.6	56.1	0.0	4.8	100	10	Nb		●°			— 1.0
	Midt.	30	90 30	WbN	1.2	54.6	2.2	4.8	89	10	Nb					— 1.1
12	4	47	91 30		0	54.8	— 0.2	4.4	98	10²	Nb		●° 7			— 1.3
	8	50	20		0	53.4	0.9	4.6	94	10²			●°&≡ 8			— 1.4
	Noon	50	40		0	54.0	0.8	4.8	98	10	Nb		●*°&≡° 9			— 1.3
	4	50	92 0		0	53.6	0.6	4.8	100	10	Nb		●*°&≡°			— 1.3
	8	50	20	NbW	1.7	52.4	0.5	4.4	92	10	Nb		≡°			— 1.2
	Midt.	50	30	NNW	1.8	51.3	0.5	4.6	96	10	Nb					— 1.3
13	4	50	40	NNE	5.7	50.3	0.3	4.4	94	9	Nb					0.0
	8	50	93	NbW	3.9	50.5	0.5	4.6	96	10	St-Cu					— 0.3
	Noon	50		WNW	7.2	50.3	0.0	4.6	100	10			≡° 10			— 0.4
	4	50		WNW	6.1	49.9	— 0.1	4.5	98	10			≡°			— 0.4
	8	50		NWbW	4.3	49.7	0.0	4.6	100	10	Nb		*° 11			— 0.9
	Midt.	50		NWbW	5.6	49.4	0.4	4.1	87	10	Nb		●°			— 1.0
14	4	76 50	93	NbW	5.5	49.1	— 0.8	3.9	90	10	St-Cu & Nb					— 1.2
	8			NWbW	6.5	48.1	— 0.2	4.3	94	5	Nb		*°			— 1.1
	Noon			NbW	5.3	48.6	0.6	4.6	96	9	St-Cu		≡°			— 1.1
	4			NbW	8.2	49.0	0.4	4.7	100	10	St-Cu		≡°			— 1.2
	8			NWbW	7.2	50.3	— 0.3	4.4	100	10			≡°			— 1.2
	Midt.			NWbW	6.6	50.7	— 0.2	4.3	94	10	Nb		12			
15	4	76 49	93	NWbW	8.2	51.2	0.4	4.1	87	10	Nb		*°			
	8			WbN	5.7	52.4	0.1	4.3	94	10	Nb		*°			— 1.3
	Noon			NWbW	6.5	53.9	— 0.1	4.3	94	10	St-Cu					
	4			NWbW	7.0	54.9	0.5	4.5	94	10	Nb		*°			
	8			NWbW	4.8	55.6	— 0.1	4.5	98	10	Nb					
	Midt.			NWbW	5.3	55.7	0.3	4.2	89	10	Nb					
16	4	76 48	93	NWbW	6.6	56.0	— 0.2	4.5	100	10²	Nb		*°			— 1.3
	8			NWbW	5.2	56.2	0.4	4.4	92	10	Nb		*°			

	Noon					NWbW	4.0	56.7	0.3	4.4	94	10	Nb				
	4					NWbW	3.4	56.7	0.4	4.4	92	10	Nb				
	8					NWbW	4.5	57.2	0.0	4.4	96	10	St				
	Midt.					NWbW	3.0	57.5	0.1	4.5	98	10	St				— 1.3
17	4	76	47	93		NWbW	1.0	57.8	0.0	4.2	90	10	Nb				
	[illegible]					SWbS	1.6	58.5	1.1	4.7	94	10	Nb	*°			
	Noon						0	59.0	1.8	4.6	88	10	Nb				
	4						0	59.5	1.8	4.8	91	10	Nb	*°			
	8						0	59.4	0.5	4.5	94	10	Nb				
	Midt.						0	58.9	0.6	4.0	83	10	Nb				
18	4	76	46	93		EbN	1.7	58.1	0.0	4.3	92	10	Nb				
	8						0	56.7	0.6	4.2	89	9	St				
	Noon					NEbE	1.8	56.6	0.7	4.6	94	9	St-Cu				— 0.9
	4						0	56.7	1.2	4.6	92	6	St				— 1.2
	8					NWbW	2.0	57.0	0.5	4.7	100	8	St-Cu				— 1.2
	Midt.					NWbW	1.0	57.8	— 0.9	3.9	90	10	Nb				
19	4	76	45	93	0		0	59.0	— 0.5	4.1	92	10	St-Cu				— 1.2
	8		45		0		0	59.7	— 0.3	4.4	98	9	St-Cu				— 1.2
	Noon		45		0		0	60.4	1.0	4.6	92	8	St-Cu		[13]		— 1.1
	4		45		0		0	61.0	0.1	4.6	100	8	St-Cu				
	8		45		0		0	60.7	0.5	4.6	94	8	St-Cu				— 1.2
	Midt.		45		0		0	61.0	— 0.8	3.7	86	8	St-Cu				— 1.3
20	4		44		0		0	61.1	— 1.5	3.6	83	3	St				— 1.2
	8		43		0	WbS	1.0	60.8	— 0.4	4.0	90	5	St				
	Noon		43	92	40		0	61.1	0.3	4.4	94	6	St-Cu				— 1.0
	4		43		36	NWbW	3.7	61.4	— 0.6	4.2	96	5°	Ci-St & St				
	8		43		32	NWbW	4.7	61.8	— 2.0			10		≡			
	Midt.		43		28	NWbN	3.3	62.0	— 3.0			10		≡			
21	4		43		24	NWbW	2.5	62.3	— 2.7	3.3	87	10		*°			
	8		43		20		0	61.7	— 1.1	3.6	84	10	Nb				
	Noon		43		16		0	61.0	— 0.4	3.9	89	10	Nb				
	4		43		12		0	61.0	— 0.4	3.9	87	9	St-Cu				
	8		43		8		0	60.0	— 0.5	3.7	83	10	St-Cu				
	Midt.		43		4		0	58.0	— 1.1	3.5	82	10	Nb	*°&≡°			
22	4		43		0		0	58.2				10[2]	Nb	*			
	8		43	91	56	NW	2.4	56.8	— 1.0			10	Nb	*°			
	Noon		43		52	NW	2.1	57.4	— 1.0	3.9	92	10	Nb	*°			
	4		43		48		0	58.3	0.0	3.8	83	9	St-Cu	*			
	8		43		44		0	59.0	— 2.0	3.5	90	8	Cu-Nb	*			
	Midt.		43		40	SbE	1.7	60.3	— 2.0			10	Nb	*°			
23	4		43		36		0	61.5	— 1.4	3.6	88	10		*°&≡°			
	8		43		32		0	62.5	0.1	4.3	94	10	Nb	≡°			
	Noon		43		28	N	1.7	63.5	— 0.1	4.2	92	9	Nb				
	4		43		24	NE	1.9	63.6	0.0	3.2	71	10°	St				

[1] Between 11 a. m. and noon the instruments were taken out of the thermometer-screen. Left the winter harbour between noon and 1 p. m. Going in the ice. — [2] Fogbank to N. — [3] North Kent about 4 miles off. — [4] 11 p. m. ◎°. — [5] 12.30 a. m. moored to the ice-edge. — [6] Going east and north. [7] 2 a. m. ◎. 3 a. m. moored to a floe. — [8] Recommenced to work. — [9] Stopped on account of the screwing pack. Going at intervals, beating in the pack. — [10] 9.30 p. m. off Arthur Strait, that was closed by ice. — [11] 6.15 p. m. stopped on account of fog and close ice, and remained enclosed to the 24th, 11 p. m. — [12] 11 p. m. a little screwing. — [13] 9 a. m. a little slacker ice.

SEA-OBSERVATIONS.

1900 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 23	8	76° 43'	91° 20'		0	762.8	− 2.6	3.4	92	10			≡			
	Midt.	43	15	N	2.4	62.0	− 4.6			10			≡ 1			− 1.4
24	4	43	10	NW	4.1	61.0	− 6.4			10			≡			
	8	43	5	SW	2.2	58.8	− 3.2			9	St-Cu					
	4	42	90 58		0	59.4	− 1.2	3.8	90	10			≡°			
	8	40	56	N	1.8	60.0	− 2.1	3.6	92							
	Midt.	38	54	WSW	2.2	60.2	− 2.8			9	St		2			
25	4	37	52		0	60.5	− 2.7	3.3	87	9	St-Cu		3			
	8	35	50		0	60.0	− 3.2	3.2	89	10	St					
	Noon	34	47	NW	2.2	59.5	− 3.1	2.8	76	7	St-Cu					
	4	33	45		0	57.8	− 0.6	3.2	85	10	Nb		✱°			
	8	32	42		0	54.4	− 0.8	4.7	98	10	Nb		✱°&≡°			
	Midt.	30	40	EbS	5.2	50.8	1.0	4.5	90	10			◍ ✱° 4			
26	4	30	40	NNW	3.3	46.9	0.5	4.4	92	10	Nb		✱°			− 1.4
	8	32	40	SSE	8.2	45.1	1.5	4.2	82	10			◍ ✱°			
	Noon	34	40	S	7.0	45.2	1.4	4.2	83	9	St-Cu					
	4	38	50	S	4.7	46.5	0.7	4.0	83	9	St-Cu					
	8	42	55	S	4.4	47.0	0.2	4.1	89	8	St-Cu					
	Midt.	45	91 0	SE	6.5	47.0	0.1	4.2	92	10	St-Cu					− 1.5
27	4	45	92 0	SEbE	3.4	47.2	1.5	4.4	85	10	Nb					
	8	45	0	EbN	4.5	47.5	0.9	4.5	92	10	St-Cu		✱°			
	Noon	45	0	SbE	1.6	48.8	1.1	4.0	81	8	St-Cu					
	4	45	0		0	50.2	0.4	3.9	83	4°	St					
	8	45	0		0	51.4	− 1.3	3.4	82	5	St-Cu		5			
	Midt.	45	0	NEbN	1.0	51.9	− 3.4	3.1	87	8	St-Cu					
28	4	76 45	92		0	53.0	− 2.0	3.5	88	9	Nb					− 1.6
	8			WbS	2.8	53.5	− 0.8	3.7	85	9-10²	St					
	Noon			SWbS	3.2	55.0	0.4	4.5	94	10	St-Cu					
	4			WSW	3.0	56.0	0.0	4.6	100	9	St-Cu					
	8				0	57.0	− 0.3	4.3	96	10	St					
	Midt.				0	57.8	− 1.3	3.7	88	10	St-Cu					
29	4	76 45	92	SWbW	1.0	58.7	− 1.6			10			✱°			
	8			SWbW	3.4	58.3	− 1.3	3.7	88	10	Nb		◍ ✱ 6			− 1.5
	Noon				0	58.1	− 0.2	4.4	96	9	Nb		✱°			
	4			NEbN	2.5	57.4	− 1.2	3.6	86	9	Nb					
	8			NEbE	2.1	56.5	− 1.2	3.7	88	9°	St					
	Midt.			NEbN	5.9	56.3	− 1.6			10	St					− 1.4
30	4	76 45	92	NbE	7.5	56.6	− 2.1	3.5	90	10	St-Cu					
	8			NbW	6.2	57.5	− 3.6			10	St-Cu					
	Noon			NbW	5.0	58.1	− 3.3	3.1	87	6°	St-Cu					
	[illegible]			NbW	[illegible]	[illegible]	[illegible]	3.4	87	[illegible]	[illegible]					

		8			NbW	4.7	60.1	— 4.0	2.9	84	10	St		
		Midt.			NbW	3.3	60.8	— 5.6	2.5	85	10²	St		
	31	4	76 45	92	NbW	3.5	61.8	— 6.3			10	St		
		8			NWbN	6.2	62.0	— 5.1			10	St		
		Noon			NbW	3.8	62.7	— 4.8			10	St		
		4			NbW	2.2	63.3	— 4.7			10	St		
		8			NbW	3.0	63.2	— 6.2			10	Nb		
		Midt.			NNW	3.2	63.0	— 5.6			10		*°	
Sept.	1	4	76 45	92	NWbW	4.2	62.1	— 5.9			10²	Nb	*°	
		8			NNW	4.8	60.2	— 5.2			10	St		
		Noon			WNW	3.0	60.1	— 3.8			7°	Ci-Cu & St		
		4			WNW	3.5	59.5	— 3.3			3°	St		
		8			WNW	2.5	59.3	— 3.6			10	Nb		
		Midt.			WNW	2.2	59.7	— 5.4			10	Nb	∞°	
	2	4	76 45	92	NbE	1.0	61.1	— 5.6			10		≡°	
		8			ENE	1.0	61.6	— 5.1			10		≡	
		Noon			NEbN	2.8	62.5	— 3.8			10	Nb		
		4			NEbN	1.0	63.3	— 3.6			10	Nb		7
		8				0	64.0	— 4.4			10	Nb	*°	
		Midt.				0	64.2	— 4.5			10		≡°	
	3	4	76 45	92		0	64.3	— 5.0			10		≡	
		8				0	63.7	— 4.8			10		≡	
		Noon				0	63.6	— 5.8			10	Nb	≡°	
		4			NbW	2.1	63.2	— 4.5			10	Nb	≡°	
		8			WNW	2.8	62.8	— 4.3			10		≡°	
		Midt.			WNW	2.8	62.8	— 8.1			1-2	St		
	4	4	76 44	92	NWbN	5.0	63.2	— 7.8			10²	St	≡	
		8	43		NWbW	2.7	63.8	— 7.8			10		≡	
		Noon	42	91 30		0	63.7	— 8.2			10		≡	
		4				0	64.2	— 7.8			10		≡	
		8				0	64.5	— 9.4			10		≡	
		Midt.				0	64.2	— 11.2			10	Nb	≡°	
	5	8				0	62.9	— 9.8			2	St		
		Noon	76 72	91 30		0	62.0	— 8.2			3	St		
		4				0	60.8	— 7.4			3	Ci & St		
		8				0	59.6	— 9.2			10		≡	
		Midt.			WNW	1.0	58.0	— 8.5			8	St		
	6	4			NWbW	5.2	56.5	— 6.1			10	Nb	*°	
		8			NbW	5.7	55.2	— 4.8			10	Nb		
		Noon	76 42	91 30	NbW	3.9	55.7	— 3.7			10	Nb	*	
		4			NbW	4.6	55.3	— 4.6			7	Cu-Nb		
		8			NbW	4.4	56.3	— 5.9			9	St-Cu		
		Midt.			N	2.8	56.5	— 6.8			10		≡	
	7	4			NWbN	3.2	56.5	— 6.8			10	Nb		
		8			NWbW	2.6	56.7	— 11.5			2°	Ci	∞	
		Noon	76 42	91 30	W	1.8	56.4	— 10.1			6	Ci-St		

[1] Tryed to go NE, but the ice tightened, so we get no way. — [2] 10.30 p. m. went in one hour farther outwards and southwards in Cardigan Strait. — [3] 2 a. m. outwards in two hours in closepacked ice. — [4] 10 p. m. two hours southeast. Stopped 12.30. [5] 7.30 p. m. commenced to work southwards, but were obliged soon to stopp again. — [6] 3.45 a. m. began to go SE. Alternately going and lying still. — [7] Shutted sea watch and set one man's watch.

SEA-OBSERVATIONS.

1900 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 7	4	76° 42′	91° 30′		0	756.5	— 9.0			8°	Ci-Cu & St					
	8				0	56.3	— 10.2			4°	St					
	Midt.				0	56.1	— 13.1			2	St					
8	4				0	56.0	— 14.1			10	St					
	8				0	55.8	— 10.3			10			≡			
	Noon	76 42	91 30	NbW	2.7	55.3	— 8.1			10			≡			
	4			NWbW	3.6	55.1	— 9.4			10			≡			
	8			NWbW	3.8	54.9	— 8.4			10	St					
	Midt.			NWbW	2.6	54.8	— 7.6			10	Nb					
9	4			WSW	2.2	55.1	— 8.0			10	Nb		∞			
	8			NWbW	4.3	55.3	— 6.0			10	Nb					
	Noon	76 42	91 30	NWbW	3.1	54.9	— 2.8			10	Nb		≡° & ✱°			
	4				0	55.0	— 2.2			10	Nb		✱°			
	8				0	54.9	— 2.5			10	Nb					
	Midt.				0	54.6	— 2.3			10			✱°			
10	4				0	54.7	— 3.0			10			≡			
	8			NbW	2.9	54.5	— 4.1			10			≡			
	Noon	76 42	91 30	NEbN	2.6	54.2	— 4.8			10			≡			
	4			ENE	3.3	54.4	— 5.0			10			≡			
	8			ENE	2.8	54.2	— 7.9			9	St					
	Midt.			ENE	3.1	53.8	— 6.3			10	Nb					
11	8			E	2.8	54.5	— 4.8			10	Nb					
	Noon	76 42	91 30	NbE	2.6	54.8	— 4.8			10	Nb					
	2			NbE	2.0	54.6	— 5.6		98	10	Nb					
	4			NbE	2.0	55.0	— 5.3		100	10			≡			
	6			NbE	2.3	55.1	— 5.1		100	10			≡			
	8				0	55.4	— 5.0		100	10			≡			
	10				0	55.3	— 5.0		100	10			≡			
	Midt.	76 44	91 30		0	55.3	— 5.8		94	10			≡			
12	2				0	55.3	— 5.7		96	10						
	4				0	55.5	— 6.8		95	5°	Ci					
	6				0	55.6	— 8.8		95	5°	Ci					
	8				0	56.1	— 8.2		94	3°	Ci-Cu		≡			
	10				0	56.1	— 6.9		91	8°	St-Cu		∞			
	Noon	76 46	91 30		0	56.2	— 5.3		99	10	Nb					
	2				0	56.3	— 4.9		99	10	Nb					
	4				0	56.7	— 4.5		97	9	St-Cu					
	6				0	57.0	— 4.5		97	10	St-Cu					
	8				0	57.3	— 4.9		100	10	St					
	10				0	57.4	— 4.8		100	10	St					

13	2				0	58.1	— 4.2	100	10		∞°	
	6				0	59.0	— 4.4	100	10	St		
	8				0	58.8	— 4.1	95	10	St		
	10			SE	2.9	59.2	— 4.2	94	10	St		
	Noon	76 48	91 30	SSE	2.8	59.1		95	10	St		
	2			SSE	3.0	59.3	— 3.5	94	10	St		
	4			SSE	2.2	59.7	— 2.9	98	10	St		[1]
	6			SSE	1.8	59.8	— 2.9	99	10[2]	St	*	
	8				0	59.7	— 3.8	93	10	St		
	10				0	59.7	— 3.7	93	10	St	*°	
	Midt.	76 49	91 30		0	59.6	— 3.6	97	10	St		
14	2			EbS	1.5	59.6	— 3.4	98	9	St-Cu		
	4			EbS	2.2	59.4	— 1.5	94	10	St-Cu		
	6			EbS	3.0	58.8	— 2.0	96	10	Nb	*°	
	8				0	58.8	— 2.1	93	10	Nb	∞°	
	10			EbS	4.0	58.4	— 2.3	91	9	Nb		
	Noon	76 50	91 30	EbS	6.5	57.5	— 4.3	85	5	Ci-Cu		
	2			EbS	4.2	57.1	— 3.1	86	10		∞°	
	4			ENE	5.8	56.5	— 2.2	75	10	Nb		
	6			NE	7.2	54.9	— 1.4	80	10	Nb		
	8			NE	8.0	52.8	— 1.0	81	10	Nb		
	10			NE	8.0	50.8	— 1.5	81	10	Nb		
	Midt.	76 50	91 30	NbE	7.3	48.5	— 1.9	89	10	Nb	*°	
15	2			NbE	10.2	46.5	— 2.5	98	10	Nb	*	
	4			NbE	7.8	44.6	— 2.2	100	10[2]	Nb	*	
	6			SbE	4.8	43.1	— 6.4		10[2]	Nb	*	
	8			SbE	3.7	41.9	— 7.1	100	10	Nb	*	
	10			SWbS	2.7	40.5	— 5.6	96	10	Nb	*	
	Noon	76 50	91 30	E	8.1	39.5	— 1.4	94	10	Nb	*	
	2	49		NE	4.0	39.7	— 1.4	97	10	Nb	*	
	4	48		NbW	3.6	40.8	— 1.0	85	10	Nb	*°	
	6	48	92	NbW	5.9	42.1	— 1.3	100	10	Nb	*°	
	8	51		NbW	6.0	43.7	— 1.1	93	10	Nb		
	10	54		EbS	5.1	45.0	— 1.2	94	10	Nb		
	Midt.	58		EbS	5.8	46.4	— 1.2	83	10	Nb		
16	2	77 2	92	EbS	8.5	47.8	— 1.5	93	10	Nb		
	4	5		WbS	7.0	49.9	— 1.9	85	8°	Ci-St		
	6	8		SWbS	4.5	51.9	— 2.1	84	8	St-Cu		
	8	11		NNW	3.8	53.3	— 2.9	84	6	St-Cu		
	10	15		NNW	3.7	53.8	— 4.5	92	10°	St-Cu		
	Noon	7	92 0	NW	4.7	54.5	— 4.1	94	10°	St-Cu		
	2	0	91 55	NW	7.4	55.0	— 6.0	96	9	St-Cu		
	4	76 53	50	W	6.4	55.8	— 7.2	93	3	Ci-St & St		
	6	46	45	WNW	6.2	56.5	— 8.0	93	3	Ci-St		[2]
	8	45	40	WNW	5.0	56.3	— 8.8	98	2	St		[3]
	10	45	20	NW	4.0	57.0	— 8.9	92	4	St		
	Midt.	30	0	NW	5.0	55.9	— 8.2	91	10	St		
17	2	30	90 40	NW	8.2	56.0	— 8.5	77	10	St	*°	
	4	30	40	NW	8.2	55.6	— 7.9	96	10	St		

[1] 3 p. m. *°. — [2] Two mock-suns. — [3] 7 p. m. northwards to Graham Island.

SEA-OBSERVATIONS.

1900 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 17	6	76° 22′	90° 0′	NW	4.2	755.0	— 7.3		88	10	St		∞°			
	8	20	88 40	NW	2.6	54.3	— 6.8		84	3	Cu-Nb					
	10	17	40	N	7.8	54.1	— 6.8			8	St					
	Noon	35	40	NNW	11.2	53.7	— 6.7		80	10°	St		*°			
	4	42	40	N	4.0	54.2	— 7.4		100	10	St					
	6	49	40	N	3.7	54.3	— 7.5		99	10	St		≡			
	8	Gaasefjord		N	3.5	53.5	— 7.4		86	10	St					
	10			N	3.7	52.9	— 6.5		83	8	St					
	Midt.			N	4.2	53.0	— 5.9		82	10	St					

SEA-OBSERVATIONS.

1902 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 21	4	76° 41′	88° 42′	SW	6.3	767.0	8.5	4.9	59	10	St					
	8	42	42	SSW	6.2	67.8	6.3	5.5	78	9	St-Cu					
	Midt.	42	42	SSW	8.4	67.7	6.3	4.9	66	9	St-Cu					
22	4	76 42	88 42	E	1.4	68.8	5.6	4.7	69	9	St-Cu					
	8	42	42	SE	5.6	69.3	4.0	4.7	77	8	St-Cu					
	Noon	36	43	S	7.0	68.9	8.4	4.9	60	9	St					
	8	36	42	SW	2.2	68.7	8.0	4.8	60	10	St					
	Midt.	36	41	S	5.8	68.5	1.7	4.6	90	8	St	SE?				
23	4	76 36	88 41	N	1.0	68.0	1.9	4.8	91	9	St					
	8	36	41	S	4.2	67.1	2.7	4.9	87	10	St					
	Noon	36	40		0	66.1	8.4	5.0	61	7	St					
	4	36	40		0	65.8	7.5	5.2	68	3	Ci-St					
	8	36	40		0	65.9	2.6	4.8	85	4	St					
	Midt.	36	40		0	66.0	2.7	4.7	84	8	St	NE				
24	4	76 36	88 40		0	67.2	2.8	4.7	84	9	St	W				
	8	36	40		0	67.7	5.5	5.0	74	5	Ci-St$_2$ & St$_3$	W				
	Noon	36	40	N	1.0	68.1	5.5	5.0	74	9	St					
	4	35	38		0	68.7	5.3	5.7	86	7	Ci-St$_4$ & St$_3$					
	8	35	38		0	68.7	3.7	4.8	80	7	Ci-St$_5$ & St$_2$					
	Midt.	35	38		0	68.2	2.0	4.6	87	8	Ci-St$_7$ & St$_1$					
25	4	76 35	88 38		0	67.3	4.4	5.4	87	5	Ci-St$_4$ & St$_1$					
	8	35	38		0	65.9	4.1	4.8	79	4	Ci-St$_3$ & St$_1$	SSE				
	Noon	35	38		0	63.9	6.4	5.1	71	3	Ci-St$_3$	SSE				
	4	34	38	SE	2.2	62.7	7.6	5.0	64	6	St-Cu	SE				
	8	34	38	SE	3.2	61.5	5.0	4.6	71	9	St	SE				
	Midt.	34	38	SE	3.8	60.5	7.8	4.3	56	10	St & Fr-St	SE				
26	4	76 34	88 38		0	59.6	5.2	5.3	80	10	Nb		◍^{0}			
	8	33	38	SSE	3.9	57.5	7.4	4.7	61	10	Nb					
	Noon	32	37	S	3.6	57.8				10	Nb		◍^{0}			
	6	31	37	SE	6.8	57.8				10	Nb		◍^{0}			
	8	30	36	E	4.8	57.8	5.5	5.1	76	10^2	Nb		◍^{0}			
	Midt.	30	36	W	1.0	57.8	3.4	5.2	90	9^2	Nb		◍^{0} [1]			
27	4	76 30	88 36		0	58.0	1.5	4.7	93	10	Nb					
	8	30	36		0	59.0	1.9	4.8	91	10^2	St					
	Noon	30	36		0	58.9	5.6	5.4	80	9-10	St-Cu	SE				
	4	30	36	S	1.8	59.2	2.6	4.9	89	9	St-Cu$_3$ & Cu-Nb$_7$	E & SE				
	8	30	36		0	59.3	1.4	4.8	94	9	St	SE				
	Midt.	30	36		0	59.3	2.0	4.8	91	9	St-Cu					
28	4	76 30	88 36	N	1.1	59.7	2.4	4.9	89	10	St	NE				
	8	30	36	N	1.0	60.1	4.1	5.4	88	9	St-Cu	NE				
	Noon	30	36	NE	1.0	60.3	4.0	5.1	84	10	St-Cu	NE				

[1] 10 p. m. ◍

SEA-OBSERVATIONS.

1902 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
July 28	4	76° 30′	88° 36′	NE	1.0	760.2	4.2	5.2	84	10	St-Cu	NE				
	8	30	36	S	1.0	60.6	3.8	5.4	90	9	St & St-Cu					
	Midt.	30	36		0	60.2	5.0	5.3	81	7	St	NE				
29	4	76 30	88 36		0	60.2	3.5	5.2	88	5	St & St-Cu					
	8	30	36		0	60.0	2.3	4.9	91	4	Ci-St$_2$ & St$_2$	NE & 0				
	Noon	30	36	W	1.9	59.6	6.8	5.8	78	2	St-Cu					
	4	30	36	SW	1.0	58.6	4.9	5.0	76	3	St	NE				
	8	30	36		0	57.7	2.0	4.7	89	3	St-Cu	E				
	Midt.	30	36		0	56.9	3.5	5.2	88	2	Ci-St$_1$ & St$_1$					
30	4	76 29	88 35	N	1.0	56.4	4.1	5.1	84	4	St$_3$ & Fr-St$_{0-1}$	NE				
	8.15	29	35	N	8.3	55.6	3.8	5.1	85	0-1	Fr-St					
	Noon	29	35	N	8.8	55.3	4.0	4.9	80	0						
	8	22	35		0	55.7	4.1	5.1	84	1	St					
	Midt.	25	40		0	56.6	1.4	4.7	93	0-1	St					
31	4	76 25	88 40		0	57.5	2.4	5.0	91	3	Ci-St					
	8	25	40	S	6.3	58.6	4.6	4.5	71	6	Ci-St					
	Noon	28	40	S	6.5	59.0	4.2	5.0	80	4	Ci-St					
	4	28	40	S	4.4	59.5	4.0	5.0	82	9	St	SSE				
	8	29	40		0	59.7	4.0	5.1	84	7	Ci-Cu & St	SE				
	Midt.	29	40		0	59.4	3.5	4.8	82	9	Ci-Cu	NE				
Aug. 1	4	76 29	88 32		0	58.6	2.5	4.9	89	10	St					
	8	29	32	SSE	2.8	57.7	2.2	4.8	89	9-10	St					
	Noon	29	32		0	56.6	6.6	5.2	71	9	St	NE				
	4	29	32	NE	1.0	56.2	6.6	5.1	70	9	St-Cu	NE				
	8	29	32	N	1.0	56.4	5.8	5.2	76	9	St-Cu	NE				
	Midt.	29	32		0	56.2	6.4	5.0	69	8	St-Cu					
2	4	76 29	88 32		0	57.2	4.3	4.8	77	10	Ci-St$_7$ & St$_3$					
	8	29	32		0	58.1	3.4	4.8	82	9	Ci-St$_2$ & St$_7$	NE				
	Noon	29	32	S	3.8	58.9	4.2	5.0	80	9	St$_6$ & St-Cu$_3$	ENE				
	4	29	32		0	59.4	5.1	5.3	82	8	St	ESE				
	8	29	32		0	59.7	4.9	5.1	78	8	St	SE				
	Midt.	29	32		0	59.5	1.6	4.9	94	3	St	0				
3	5	76 29	88 32		0	60.6	4.3	5.0	80	3	St-Cu	ESE				
	8	29	32		0	60.7	5.5	5.1	76	9	St-Cu	ESE				
	Noon	29	32	E	2.7	60.8	9.8	4.7	52	10	St-Cu	ESE				
	5	29	32		0	61.5	7.0	5.9	78	4	St	ESE				
	8	29	32		0	62.0	3.7	5.1	85	9	St & St-Cu	E				
	Midt.	29	32	SE	1.0	62.2	2.4	4.9	89	9	St-Cu	E				
4	4	76 29	88 32		0	62.7	2.1	4.8	89	5	St-Cu	ENE				
	8	29	32	SE	3.2	63.2	5.7	4.5	66	1	St					
	Noon	29	32	SSE	5.8	63.0	5.3	5.1	76	1	St					

5	4		29		32	N	1.0	63.5	3.6	5.0	85	0·1	St-Cu			
	8		29		32	S	3.0	62.7	3.1	5.2	91	1	St			
	Midt.		29		32		0	62.2	2.7	5.2	93	1	Ci-Cu			
	4	76	29	88	32	NE	1.6	61.2	1.0	4.6	92	2	St			
	8		29		32		0	60.6	7.6	5.4	69	3	Ci-St	0		
	Noon		29		32	N	2.5	59.1	7.8	5.1	64	9°	Ci-St	E		
	4		29		32	N	5.7	58.7	6.8	4.7	64	7°	Ci-St			
	8		29		32	N	4.7	58.3	6.7	5.1	70	1°	Ci-St			
	Midt.		29		32	N	6.0	57.7	5.1	5.5	85	0				
6	4	76	29	88	32	N	1.0	57.5	2.8	4.9	88	0				
	8		29		32		0	57.1	6.5	5.5	77	0·1	Ci-St			
	Noon		29		32	N	3.5	56.8	9.6	6.1	69	3	Ci_2 & $St\text{-}Cu_1$			
	4		24		40	WSW	7.1	56.7	3.4	5.1	87	5	$Ci\text{-}St_4$ & $St\text{-}Cu_1$		[1]	
	8		22		50		0	57.6	3.2	5.3	92	8	Ci & St			
	Midt.		22	89	0	ENE	10.1	56.7	2.6	4.9	89	7	St-Cu			
7	4	76	15	86	40	NbW	8.9	58.2	2.3	5.1	94	6	Fr-St			
	8		10	84	30	NbW	11.9	57.6	3.4	5.2	90	6	St_4 & Fr-St			
	Noon		25		15	NbW	11.6	57.2	3.6	5.5	93	10	Nb			
	4		28		10	SbW	6.8	59.5	5.7	5.2	76	8	St-Cu			
	8		29		4		0	59.7	7.5	5.9	76	9	St-Cu	SE	[2]	
	Midt.		29		4		0	59.5	6.8	5.9	80	10	Nb	SE		
8	4	76	29	84	4	S	4.9	59.9	4.2	5.2	85	10	Fr-St	SE		
	8		29		4	S	3.4	60.6	7.0	5.1	69	10	Fr-Nb	SE		
	Noon		29		4	S	8.2	59.8	5.0	4.9	75	1	St	SE		
	4		29		4	NE	1.0	58.9	6.9	5.0	67	9	Nb	SE		
	8		29		4		0	58.1	4.6	5.5	87	10	Nb		●°	
9	1	76	29	84	4	SE	3.2	56.9	6.3	5.9	83	10	Nb	SE		
	4		29		4		0	56.6	4.4	5.5	88	10	St-Cu	SE		
	8		29		4	SSE	3.8	56.9	4.8	6.2	97	10	Fr-Nb	SE	●°	
	Noon		29		4	S	2.3	57.0	6.7	7.0	96	10	Nb & Fr-Nb			
	4		25		0		0	57.2	4.7	5.7	89	10	St-Cu		[3]	
	8		7	82	17		0	57.7	2.6	5.3	96	10°	St-Cu			
	Midt.	75	50	80	34	W	2.8	57.8	2.2	5.0	93	10	St-Cu			
10	4		27	77	50	NNW	4.7	57.7	2.2	5.0	93	9	St-Cu			
	8		23	76	6	WNW	5.8	56.8	4.9	6.0	94	4	St			
	Noon		17	74	30	NW	7.7	55.8	4.4	5.8	93	10			∞°	
	4		13	72	30	NbW	6.9	55.7	6.8	6.5	88	2°	Ci-St			
	8		10	71	0	NW	4.4	56.0	5.6	6.0	88	9	A-Cu			
	Midt.		10		0	SSW	5.2	56.7	3.0	5.6	98	10			≡°	
11	4		10	69	20	SbE	6.1	58.4	2.2	5.2	98	10	Nb	SEbS	≡°	
	8		10		20	SbE	8.1	59.8	4.1	6.0	98	10			●°	
	Noon		20	68	0	SSE	9.6	60.6	4.8	6.4	100	10	Nb			
	4		40	67	15	EbS	9.8	60.6	5.2	6.4	97	10			≡° & ●°	
	8		28		6	ESE	10.9	61.3	3.8	5.9	95	10	Nb			
	Midt.		16		0	EbN	8.1	61.3	2.5	5.4	92	10	Nb		●°	
12	4		4	66	57	EbN	10.0	62.7	1.9	5.2	98	10			●°	
	8	74	50		58	ENE	6.7	63.0	2.4	5.2	94	10	St			
	Noon		43		31	EbS	7.3	61.5	2.8	5.5	98	10			●°	
	4		52		6	EbS	8.8	60.8	4.4	5.6	90	10	Nb		●°	

[1] 12.15 p. m. left Gaasefjord. — [2] At anchor at Havnefjord. — [3] 3 p. m. left Havnefjord.

SEA-OBSERVATIONS.

1902 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 12	8	74° 45'	65° 5'	ESE	8.5	757.8	3.7	5.9	98	10	Nb		●			
	Midt.	32	64 36	E	11.3	51.9	2.5	5.4	98	10	Nb		●°			
13	4	15	30	SbW	5.1	52.9	0.7	4.7	96	10	Nb		∞°			
	8	7	63 22	SSW	8.1	55.0	0.6	4.7	98	10	Nb		●°			
	Noon	2	62 32	SWbS	4.2	56.6	0.7	4.7	98	10	Nb					
	4	73 55	61 46	SbW	8.8	60.1	1.4	4.8	94	8	St-Cu					
	8	48	10	SSW	9.6	62.3	2.2	5.2	96	9	St-Cu		●°			
	Midt.	48	60 15	SbE	8.3	62.9	2.2	5.4	100	10			≡			
14	4	44	59 50	S	7.5	63.2	2.5	5.5	100	10	Nb		●°			1.8
	8	31	60 28	SSE	8.6	63.0	2.4	5.3	96	10²	St					
	Noon	30	59 57	SSW	7.3	64.4	3.4	5.2	90	10	St					2.4
	4	29	20	SbW	4.6	64.3	3.4	5.6	97	9	A-Cu & St					2.5
	8	24	58 40	EbN	3.5	63.6	4.6	6.0	96	10	A-Cu & St		1			3.2
	Midt.	10	36	E	5.2	62.4	5.2	6.4	97	10	St-Cu					4.1
15	4	1	20	EbS	5.1	62.3	5.6	6.2	91	10	St					3.4
	8	72 44	8	E	8.8	62.3	5.4	6.1	91	8	St-Cu					3.4
	Noon	28	45	SSE	6.9	62.1	2.4	5.4	98	10	Nb		≡°			3.3
	4	18	25	SSW	9.6	63.7	4.5	5.9	94	9	St					4.0
	8	3	57 33	S	8.2	65.3	4.8	6.1	96	9	St					4.5
	Midt.	71 55	56 46	SW	4.2	65.9	5.1	6.2	94	10	Nb		●°			4.5
16	4	35	21		0	66.0	6.3	6.9	98	9-10	A-Cu & St					5.2
	8	16	55 55	NEbN	2.7	66.4	6.8	6.7	91	9	St-Cu					4.5
	Noon	70 57	30		0	66.2	7.5	7.0	90	2	Ci-St & St					5.7
	4	32	30	WNW	1.4	65.9	7.5	7.0	90	5°	St					6.2
	8	5	25			66.2	7.1	6.9	91	3	St					7.2
	Midt.	69 38	20	NNW	3.5	66.2	6.3	6.7	94	5	St		2			6.3
17	4	17	54 50	NWbW	3.9	66.8	7.2	7.3	96	4	St-Cu					7.6
	8	12	53 40			67.6	7.8	7.2	92	10			≡° 3			7.5
18		Godhavn														
19		—														
20		—														
21	8	68 56	53 48	EbS	3.7		5.6	6.0	88	10	St		4			4.8
	Midt.	42	54 12	EbS	3.9	49.1	5.0	5.7	87	10	Nb		●°			4.8
22	4	32	50	ESE	4.4	48.1	4.8	6.2	97	10	Nb		●°			4.4
	8	20	55 35	SEbE	6.3	47.0	4.7	6.4	100	10	Nb		●			4.5
	Noon	67 53	44	SWbW	4.3	46.7	4.4	6.2	100	10	Nb					4.6
	4	46	33	SW	4.0	47.3	4.5	6.2	98	10	Nb		●°			4.3
	8	40	12	SbE	5.6	46.8	4.5	6.1	97	10	Nb		●°			4.4
	Midt.	32	22	SbE	5.3	46.1	4.5	6.2	98	10	Nb		●°			4.4
23	4	25	40	NWbW	3.6	46.4	3.9	6.0	98	10	Nb		≡°			4.5
	8	8	34	NWbW	5.7	47.4	4.6	6.1	97	10	Nb		∞°			4.4

24	Noon	66 49	29	NW	4.5	49.8	4.3	6.1	98	10	St-Cu					4.9
	4	33	20	NWbW	6.1	51.0	3.8	5.4	90	10	St-Cu					4.8
	8	16	10	NWbW	5.2	52.1	3.7	5.1	85	9-10	St-Cu					4.5
	Midt.	65 58	0	NWbN	2.7	53.3	4.8	5.6	87	10	St					5.0
	4	40	54 45	NEbN	4.5	54.0	4.7	5.8	93	10	St					4.8
	8	25	37	EbS	5.7	53.6	3.9	5.7	95	10	St					4.8
	Noon	1	37	EbS	5.6	53.1	4.7	6.0	94	10	St		∞°			4.7
	8.30	64 42	32			52.2	4.1	5.5	90	10	St					4.2
	Midt.	30	30		0	52.3	4.5	5.7	90	10	Cu					4.4
25	4	22	20	N	3.4	51.6	4.6	5.5	87	9	St					4.4
	8	4	12	NWbN	3.8	52.4	5.8	5.6	82	10°	St					4.8
	Noon	63 44	8	NW	2.8	53.2	6.8	4.2	98	9	St-Cu & St					6.3
	4	26	5	WbN	5.3	54.8	6.7	6.4	87	10	St					6.5
	8	9	0	SSW	2.6	55.7	5.1	5.8	89	10	St					4.1
	Midt.	62 46	53 55	EbS	3.3	55.2	5.3	6.3	96	10[2]	Nb		◍			3.6
26	4	42	54	SEbE	4.8	54.2	7.0	7.2	96	10	Nb		◍°			5.5
	8	32	54	WbS	4.4	54.9	7.0	7.3	98	10	Nb		≡			7.4
	12.45	18	41	SSW	4.9	54.9	7.8	7.6	96	10	Nb		◍°			7.5
	4	10	25	SbE	8.0	54.8	7.6	7.3	94	10	Nb		◍°			7.5
	8	1	15	SbE	7.4	53.0	7.4	7.2	94	10	Nb		◍°			7.4
	Midt.	61 54	32	SEbE	11.2	50.6	7.4	7.7	100	10	Nb		◍°			
27	4	52	40	SEbE	10.5	49.0	7.3	7.2	94	10	Nb		∞°			7.3
	8	47	50	SEbE	11.6	47.9	7.0	7.0	94	10	Nb		◍			7.3
	Noon	36	57	E	11.7	45.0	6.9	7.1	96	10	Nb		◍			7.0
	4	20	54 2	E	13.6	41.7	7.3	7.2	94	10	Nb		◍			7.2
	8	12	6	EbS	10.7	41.6	8.3	7.8	96	10	Nb		◍			7.7
	Midt.	3	11	SEbE	8.7	41.9	7.6	7.6	98	10[2]	Nb		◍			6.0
28	4	60 57	19	SWbS	9.3	43.2	6.0	6.2	85	10	Nb		◍°			5.1
	8	58	15	S	4.4	46.4	6.8	6.7	91	10	Nb		◍°			6.2
	Noon	53	6	SbW	6.6	47.3	8.2	7.0	87	10	Nb					6.5
	4	58	0	SbW	6.1	48.6	8.4	7.7	93	10	Ci-St,St-Cu&St					6.8
	8	61 4	53 45	SSW	6.9	49.0	8.4	7.5	92	10	St					7.8
	Midt.	6	30	SSW	5.8	48.5	7.6	6.9	89	4	St					6.0
29	4	7	15	SSW	4.0	48.5	7.1	7.1	94	9	St-Cu		[5]			5.6
	8	5	52 57	WSW	4.1	48.8	7.2	6.7	89	9	St					7.5
	Noon	60 50	40	NWbW	4.0	48.4	6.7	6.8	93	10	Nb		◍°			8.5
	4	34	19	WNW	7.0	48.5	6.8	6.6	90	10	Nb		◍°			7.9
	8	16	51 58	NWbW	5.4	48.9	6.6			10	Nb		◍°			8.3
	Midt.	59 58	39	WNW	6.6	49.0	6.4			9	St					8.4
30	4	40	15	WNW	5.0	49.8	6.7			4	St-Cu					8.8
	8	26	0	WNW	2.9	50.2	7.8			9	Ci-St,Cu&St-Cu					9.2
	Noon	14	50 48	ENE	2.6	50.8	9.1	5.6	65	9	St_7 & Cu_2					9.8
	4	58 57	26	N	3.7	52.4	9.0	7.0	81	8	St-Cu					9.8
	8	40	0		0	53.8	8.9	5.9	70	3	St-Cu					9.3
	Midt.	23	49 35		0	55.1	8.5	6.3	76	2	St					9.3
31	4	4	10	NWbW	5.4	56.0	8.3	6.4	78	3	St					9.3
	8	57 50	48 37	NWbW	6.3	57.2	8.8	7.1	84	4	St-Cu					9.3
	Noon	47	47 47	NWbW	5.2	58.6	9.5	6.4	72	9	St-Cu					9.4

[1] During the watch often dense fog. Numerous icebergs were passed. — [2] Fog towards W. — [3] 10 a. m. arrived at Godhavn. — [4] 3 p. m. left Godhavn. — [5] Between midt. and 1 a. m. ◬° NW-SE.

SEA-OBSERVATIONS.

1902 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel. m. p. s.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Aug. 31	4	57° 45′	47° 10′	NW	5.7	759.2	8.5	6.3	76	10	St					9.2
	8	43	46 48	NW	3.8	59.2	8.5	6.1	74	10	St					9.3
	Midt.	42	32	NW	5.3	59.4	8.6	6.4	77	10	St					9.4
Sept. 1	4	41	0	NWbN	6.8	59.8	8.0	6.0	75	10	St					9.2
	8	40	45 45	NW	2.8	60.6	8.2	5.8	71	4	St-Cu					9.5
	Noon	38	32	NNW	3.7	60.8	8.7	5.9	70	1	St-Cu					9.5
	4	38	19	NNW	3.5	60.7	9.6	5.7	64	7	St-Cu					10.0
	8	38	4	NWbN	2.0	61.0	8.4	6.2	76	2	St					9.5
	Midt.	38	4		0	60.3	8.2	6.4	79	0						9.6
2	4	39	4			59.8	8.3	5.8	71	7	St-Cu					9.3
	8	41	44 56	SWbS	7.3	59.4	8.9	5.5	65	9	St-Cu					9.5
	Noon	51	31	SWbS	6.3	57.8	8.2	6.5	81	10	St-Cu					9.2
	4.30	58 0	4	SSW	9.6	56.1	8.8	7.1	84	10	Nb		●°			9.4
	8	7	43 30	SSW	9.3	53.7	9.0	8.1	95	10	Nb		●°			9.4
	Midt.	15	1	SSW	11.0	50.5	8.3	7.4	91	10	Nb		●			8.8
3	4	25	42 37	SWbS	14.0	45.8	8.7			10	Nb		●			
	8	34	26	S	4.8	46.4	9.3	8.0	92	10	Nb		●°			8.5
	Noon	38	16	SW	2.2	47.4	9.7	8.3	92	10			≡			8.8
	4	34	16	NEbN	8.6	46.9	8.6	7.5	91	10			≡			8.6
	8	34	16	NEbN	2.5	46.5	9.0	6.6	77	10	Nb		●° & ≡			8.8
	Midt.	33	16	SSW	4.2	46.3	9.4	8.0	91	10	Nb					8.6
4	4	34	9	SW	4.4	46.9	9.3	7.2	83	8	St					9.2
	8	34	41 54	W	6.2	47.8	9.2	7.6	89	10	St-Cu					9.8
	Noon	32	35	WbN	5.2	49.0	9.9	7.8	86	9	St-Cu					10.1
	4	31	32	WbN	2.4	50.5	7.8	7.0	89	10	Nb					9.6
	8	30	30	WbN	1.6	51.4	8.2	7.4	92	10	Nb		●°			
	Midt.	32	0	WbN	12.0	53.3	8.5	7.7	93	10	Cu-Nb		●°			9.5
5	4	34	40 26	WbN	10.7	54.4	8.0	7.5	93	10	Cu-Nb		●°			9.8
	8	36	39 47	WNW	10.8	56.9	8.6	6.7	81	10	St-Cu					10.0
	Noon	38	4	WNW	11.3	58.7	8.9	6.5	76	10	St-Cu					9.8
	4	38	38 29	WbN	10.7	59.2	9.2	6.4	74	10	St-Cu					9.6
	8	38	37 57	WbS	9.2	58.7	9.5	6.6	75	10	Nb		●°			9.9
	Midt.	38	23	SWbS	12.7	55.5	9.2	8.0	92	10	Nb		●°			9.9
6	4	40	36 45	SbW	14.3	48.2	10.3	8.6	93	10	Nb		●			10.9
	8	40	12	SWbW	13.1	46.8	11.5	9.4	93	10	Nb		●			10.9
	Noon	40	35 46	SWbW	8.7	47.6	11.5	9.4	93	10	Nb		∞°			11.2
	4	40	14	WSW	8.7	47.7	11.4	8.9	89	10	Nb		∞°			10.9
	8	40	34 35	WSW	7.2	48.0	12.4	8.3	78	10	Nb					10.8
	Midt.	40	6	SWbW	7.3	46.6	10.8	8.8	92	10	Nb		●			10.6
7	4	40	33 29	WbS	13.8	48.0	10.4	6.3	68	4	St-Cu					10.9
	8	40	32 42	SWbW	11.8	49.8	11.2	6.5	67	8	St-Cu					11.1

	Noon	40	31 50	WbS	14.5	52.1	9.4	8.1	92	9	Cu-Nb					11.2
	4	37	30 55	WSW	12.9	53.9	11.5	7.4	74	9	Cu-Nb					11.3
	8	34	1	WbN	10.6	56.1	11.0	6.5	67	8	Cu-Nb					12.1
	Midt.	31	29 20	W	12.0	59.2	11.1	6.7	68	10	St					12.4
8	4	29	28 48	W	9.3	61.2	10.3	6.6	71	10	Cu-Nb					11.9
	8	27	20	W	9.2	63.9	10.7	7.1	73	10	Cu-Nb		∞°			11.4
	Noon	21	27 56	W	5.8	66.4	12.2	7.7	73	9	Cu-Nb					12.3
	4	20	46	WbS	4.1	67.3	11.7	6.5	63	10	Cu-Nb					12.2
	8	19	39	WbN	3.0	68.7	11.4	6.4	64	10	Cu-Nb					12.2
	Midt.	18	31	SWbW	2.8	69.4	11.3	6.3	62	10	Cu-Nb					12.0
9	4	17	27	SWbS	2.0	70.0	11.3	6.0	60	10	St-Cu					11.8
	8	17	20		0	70.7	11.8	6.1	59	10	St					12.6
	Noon	17	14		0	71.4	12.4	7.5	70	10	St					12.8
	4	17	7	WbS	2.5	71.7	10 0			9	Cu-Nb					12.9
	8	17	0	NNW	2.5	72.4	11.8			10	Cu-Nb					12.8
	Midt.	17	26 52	NbE	4.0	72.5	11.2			10	St					12.8
10	4	17	52	NWbN	3.0	71.9	10.8			9	Cu-Nb					12.8
	8	17	45	NEbN	3.7	72.3	11.3			6	St-Cu					12.6
	Noon	17	35	NEbN	2.4	71.4	12.1			8	St-Cu					13.0
	4	17	22	NW	2.6	72.0	12.0			8	St-Cu					12.6
	8	17	25 59	NWbN	4.3	73.0	10.6			10	St-Cu					12.4
	Midt.	17	38	NW	3.8	72.8	11.2			10	Cu-Nb					13.0
11	4	17	16	NWbN	5.1	71.8	11.7			10	St					13.0
	8	17	24 52	NWbN	4.6	71.8	10.6			10	St					13.2
	12.30	17	26	NWbW	7.0	71.5	11.3	7.8	78	10	St					12.8
	4	20	23 44	WNW	7.2	69.9	11.2	8.8	89	10	Nb		◍°			13.4
	8	25	22 58	WNW	7.9	68.4	11.6	8.2	80	7	St					12.8
	Midt.	31	8	WNW	9.2	66.6	11.9			3	St					12.8
12	4	35	21 10	NWbW	9.1	65.3	12.3	9.4	89	7	St-Cu					12.4
	8	34	20 16	NW	8.7	66.8	12.6			9°	St-Cu					13.1
	Noon	33.5	19 58	NWbN	2.4	67.2	13.3	8.8	77	10	St					13.2
	4	34	48	NW	5.2	66.8	12.0	8.7	84	10	St					12.8
	8	35	20	WNW	5.9	66.4										
	Midt.	44	18 44	WNW	6.7	64.2	11.0	9.5	97	10	Cu-Nb		◍°			12.6
13	4	54	2	WbN	9.5	62.8	11.0	8.8	90	10	Nb		◍°			12.3
	8	59 2	17 13	WNW	8.1	62.0	10.7	8.7	92	10	Nb		◍°			12.6
	Noon	6.5	16 44	WNW	10.7	60.6	12.0	7.6	73	9	St-Cu					12.6
	4	12	15 29	WNW	7.7	59.4	10.6	8.6	91	9	Cu-Nb					12.0
	8	18	14 41	WNW	8.7	58.9	10.2	8.6	93	9	Cu-Nb					11.9
	Midt.	22	13 57	WNW	7.0	56.9	10.2	8.1	87	10°	Nb					11.7
14	4	25	26	WNW	5.5	56.6	9.5	7.8	88	6	St-Cu					11.3
	8	29	6	WNW	4.5	55.3	10.9	8.0	83	7	St-Cu					11.9
	Noon	41	12 49	W	6.2	53.8	11.8	7.8	76	10	Nb					12.1
	4	57	12	W	6.2	51.7	12.4	7.2	68	9	St-Cu					11.9
	8	60 6	11 40	WSW	3.9	50.6	11.7	7.2	70	9	St-Cu					11.4
	Midt.	8	20	WSW	7.2	47.9	11.6	7.0	69							11.6
15	4	12	10 50	SW	7.7	44.0	10.4	6.7	72	10	Nb		◍			10.8
	8	16	23	WSW	8.0	42.9	10.2	6.8	73	5	St-Cu					10.8
	Noon	22	9 46	W	9.3	43.0	10.3	6.6	71	9	Nb		∞°	1		10.9

1 10 a. m. ◍ showers.

SEA-OBSERVATIONS.

1902 Day	H. l. t.	Lat. N	Long. W	Wind Direction True	Wind Vel m. p. c.	Press. St. Gr. Sea-Lev. mm	Temp. of Air C	Vap. Tens. mm	Rel. Hum. p. c.	Clouds Am.	Clouds Form	Clouds Dir. True	Weather	Swell or Sea Direction	Swell or Sea State	Temp. of Sea-Surf.
Sept. 15	4	60° 28′	9° 14′	W	7.9	742.9	10.5	7.2	75	5	St-Cu					10.4
	8	28	8 50	WbN	3.6	42.9	9.6	6.5	73	2	St-Cu					10.0
	Midt.	28	30	NW	3.7	44.0	8.7	6.7	80	5	Nb		●°			10.0
16	4	27	7 59	NbW	7.8	45.2	8.3	6.7	82	10	Nb		●°			9.6
	8	26	29	NWbN	11.3	48.6	9.1	4.9	57	8	St-Cu					10.0
	Noon	25	6 45	NWbN	10.5	48.7	8.3	5.8	71	10	Nb		●°			8.4
	4	18	5 59	NNW	14.6	49.0	7.8	6.5	82	10	Nb		●°			9.4
	8	13	21	NNW	11.6	50.9	7.9			10	Nb					10.0
	Midt.	9	4 48	NW	5.0	52.1	7.7			10	Cu-Nb					10.2
17	4	5	13	NW	10.0	52.7	8.5			7	St-Cu					10.4
	8	59 56	3 10	NWbN	7.7	54.3	8.6			6	St-Cu					9.7
	Noon	49	2 12	NNW	8.2	55.7	9.9			4	St-Cu					9.6

ERRATA.

Page 59. The first line „Part II." is to cancel.
64. 1898. Oct. 5. Min. — 10.5. Range. 7.0, read — 10.6 and 7.1.
12. - — 14.4. - 4.9, - — 16.1 - 6.6.
16. - — 15.7. - 9.0, - — 15 8 - 9.1.
65. 1898. Nov. 2. - — 31.6. - 6.1, - — 31.9 - 6.4.
26. Max. — 22.1. - 7.3, - — 21.0 - 8.3.
66. 1898. Dec. 14. Min. — 33.8. Max. — 32.3. Range 1.5, read — 34.8, — 322 and 2.6.
27. - — 31.5. Range 4.0, read — 31.7 and 4.2.
28. - — 31.7. - 3.4, - — 31.8 - 3.5.
67. 1899. Jan. 7. - — 42.2. - 10.8, - — 34.9 - 3.5.
10. - — 34.0. - 7.5, - — 34.1 - 7.6.
11. Max. — 26.5. - 9.3, - — 25.7 - 10.0.
17. Min. — 35.0. - 4.2, - — 35.9 - 5.1.
25. - — 40.5. - 6.1, - — 40.7 - 6.3.
26. - — 39.7. - 1.4, - — 41.8 - 3.5.
Mean. - — 36.5. - 6.3, - — 36.8 - 6.6.
69. 1899. Mar. 13. - — 34 3. - 5.8, - — 35.4 - 6.9.
Mean. - — 34.9. - 7.0, - — 35.0 - 7.1.
70. 1899. Apr. 8. - — 25.6. - 5.1, - — 25.8 - 5.3.
24. - — 24.9. - 10.9, - — 25.2 - 11.2.
Mean. Max. — 17.1, read — 17.2.
71. 1899. May. 4. Min. — 25.5. Range 10,9, read — 25.7 and 11.1.
6. Max. — 12.7. - 10.3, - — 11.2 - 11.8.
Mean. - — 5.2. - 6.5, - — 5.1 - 6.6.
72. 1899. June. 22. Min. — 0.2. - 2.7, - — 0.7 - 3.2.
73. 1899. July. 5. - 2.3. - 4.8, - 0.6 - 6.5.
23. Max. 6.4. - 5.5, - 7.4 - 6.6.
Mean. Range 4.7, read 4.8.
74. 1899. Oct. 27. Min. — 25.2. Range 8.0, read — 25.8 and 8.6.
Mean. - — 24.5. - 8.5, - — 24.6 - 8.6.
75. 1899. Nov. 26. - — 34.3. - 6.6, - — 34.6 - 6.9.
27. - — 35.4. Max. — 30.8. Range 4.6, read — 35.7, — 30.4 and 5.3.
30. - — 37.3. Range 5.9, read — 37.6 and 6.2.
76. 1899. Dec. 4. - — 35.2. - 7.2, - — 35.3 - 7.3.
5. - — 32.3. - 6.0, - — 32.6 - 6.3.
8. - — 35.0. - 9.1, - — 35.3 - 9.4.
9. - — 32.2. - 4.5, - — 32.5 - 4.8.
10. - — 35.0. - 7.8, - — 35.3 - 8.1.

Page 76.	1899.	Dec.	13.	Min	— 28.4.	Range	4.6,	read	— 28.7	and	4.9.
			17.	-	— 36.0.	-	11.0,	-	— 36.3	-	11.3.
			19.	-	— 39.7.	-	7.5,	-	— 40.0	-	7.8.
			21.	-	— 40.7.	-	11.0,	-	— 41.0	-	11.3.
			22.	-	— 40.3.	-	7.3,	-	— 40.6	-	7.6.
			24.	-	— 19.8.	-	5.9,	-	— 20.1	-	6.2.
			28.	-	— 12.6.	-	11.1,	-	— 12.9	-	11.4.
			29.	-	— 15.0.	-	6.6,	-	— 15.3	-	6.9.
			30.	-	— 20.5.	-	10.5,	-	— 20.8	-	10.8.
			31.	-	— 22.5.	-	7.5,	-	— 22.8	-	7.8.
			Mean.	-	— 32.7.	-	9.5,	-	— 32.8	-	9.6.
77.	1900.	Jan.	4.	-	— 27.2.	-	9.6,	-	— 27.5	-	9.9.
			5.	-	— 34.9.	-	9.6,	-	— 35.2	-	9.9.
			7.	-	— 37.0.	-	10.0,	-	— 37.3	-	10.3.
			8.	-	— 38.0.	-	12.3,	-	— 38.3	-	12.6.
			10.	-	— 36.8.	-	10.7,	-	— 37.1	-	11.0.
			11.	-	— 35.7.	-	8.0,	-	— 36.0	-	8.3.
			12.	-	— 39.8.	-	10.4,	-	— 40.1	-	10.7.
			13.	-	— 40.0.	-	10.4,	-	— 40.3	-	10.7.
			14.	-	— 41.6.	-	7.2,	-	— 41.9	-	7.5.
			15.	-	— 42.5.	-	10.6,	-	— 42.8	-	10.9.
			16.	-	— 48.0.	-	6.5,	-	— 48.3	-	6.8.
			20.	-	— 46.2.	-	6.2,	-	— 46.5	-	6.5.
			22.	-	— 43.0.	-	4.0,	-	— 43.3	-	4.3.
			23.	-	— 42.0.	-	4.8,	-	— 42.3	-	5.1.
			24.	-	— 43.1.	-	4.6,	-	— 43.4	-	4.9.
			26.	-	— 42.8.	-	5.9,	-	— 43.3	-	6.4.
			27.	-	— 35.0.	-	6.5,	-	— 35.3	-	6.8.
			28.	-	— 34.2.	-	5.5,	-	— 34.5	-	5.8.
			30.	-	— 32 4.	-	2.4,	-	— 32,7	-	2.7.
			31.	-	— 39.9.	-	9.4,	-	— 40.2	-	9.7.
			Mean.	-	— 38.1.	-	7.0,	-	— 38.3	-	7.2.
78.	1900.	Feb.	1.	-	— 39.0.	-	14.1,	-	— 39.3	-	14.4.
			4.	-	— 7.2.	-	3.4,	-	— 7.5	-	3.7.
			7.	-	— 22.7.	-	19.2,	-	— 23.0	-	19.5.
			8.	-	— 7.3.	-	7.0,	-	— 7.5	-	7.2.
			10.	-	— 11.1.	-	12.1,	-	— 11.4	-	12.4.
			12.	-	— 23.5.	-	8.5,	-	— 23.8	-	8.8.
			13.	-	— 22.7.	-	6.2,	-	— 23.0	-	6.5.
			14.	-	— 22.9.	-	6.4,	-	— 23.2	-	6.7.
			15.	-	— 30.5.	-	13.8,	-	— 30.8	-	14.1.
			16.	-	— 36.5.	-	6.0,	-	— 36.8	-	6.3.
			17.	-	— 36.0.	-	3.6,	-	— 36.3	-	3.9.
			18.	-	— 36.0.	-	7.0,	-	— 36.2	-	7.2.
			20.	-	— 32.0.	-	14.0,	-	— 32.3	-	14.3.
			21.	-	— 32.2.	-	6.2,	-	— 32.5	-	6.5.
			23.	-	— 37.5.	-	14.5,	-	— 37.8	-	14.8.
			25.	-	— 41.1.	-	8.8,	-	— 41.4	-	9.1.
			Mean.	-	— 26.2.	Max. — 16.7. Range	9.5,	read	— 27.3, — 17.3	and	10.0.
79.	1900.	Mar.	1.	-	— 31.4.	Range	6.0,	read	— 31.7	and	6.3.
			2.	-	— 38.0.	-	6.9,	-	— 38.3	-	7.2.
			5.	-	— 44.8.	-	7.6,	-	— 45.1	-	7.9.
			7.	-	— 20.1.	-	7.8,	-	— 20.4	-	8.1.
			8.	-	— 26.7.	-	13.9,	-	— 27.0	-	14.2.

Page 79.	1900.	Mar.	9.	Min.	— 27.2.	Range	9.8,	read	— 27.5	and	10.1.
			10.	-	— 37.0.	-	6.8,	-	— 37.3	-	7.1.
			11.	-	— 39.2.	-	6.3,	-	— 39.5	-	6.6.
			12.	-	— 40.0.	-	6.8,.	-	— 40.1	-	6.9.
			13.	-	— 38.3.	-	5.8,	-	— 38.6	-	6.1.
			18.	-	— 19,2.	-	9.1,	-	— 19.5	-	9.4.
			19.	-	— 24.9.	-	6.5,	-	— 25.2	-	6.8.
			20.	-	— 26.0.	-	6.0,	-	— 26.3	-	6.3.
			21.	-	— 24.5.	-	8.8,	-	— 24.8	-	9.1.
			22.	-	— 29.0.	-	6.3,	-	— 29.3	-	6.6.
			23.	-	— 32.2.	-	9.5,	-	— 32.5	-	9.8.
			24.	-	— 28.5.	-	11.5,	-	— 28.8	-	11.8.
			26.	-	— 28.0.	-	11.5,	-	— 28.3	-	11.8.
			27.	-	— 30.5.	-	9.8,	-	— 30.8	-	10.1.
			30.	-	— 28.5.	-	7.0,	-	— 28.8	-	7.3.
			31.	-	— 32.8.	-	4.8,	-	— 33.1	-	5.1.
			Mean.	-	— 31.4.	-	8.9,	-	— 31.6	-	9.1.
80.	1900.	Apr.	1.	-	— 37.0.	-	9.1,	-	— 37.3	-	9.4.
			3.	-	— 38.5.	-	11.0,	-	— 38.7	-	11.2.
			4.	-	— 36.2.	-	12.9,	-	— 36.5	-	13.2.
			5.	-	— 29.1.	-	8.5,	-	— 29.4	-	8.9.
			6.	-	— 34.8.	-	11.3,	-	— 35.1	-	11.6.
			7.	-	— 36.3.	-	12.7,	-	— 36.6	-	13.0.
			8.	-	— 27.5.	-	11.1,	-	— 27.8	-	11.4.
			10.	Max.	— 16.5.	-	3.7,	-	— 14.3	-	5.9.
			11.	Min.	— 24.2.	-	8.1,	-	— 24.5	-	8.4.
			14.	-	— 23.8.	-	10.5,	-	— 24.1	-	10.8.
			15.	-	— 24.8.	-	9.7,	-	— 25.1	-	10.0.
			16.	-	— 29.3.	-	11.3,	-	— 29.6	-	11.6.
			17.	-	— 30.9.	-	15.7,	-	— 31.1	-	15.9.
			18.	-	— 17.2.	-	4.7,	-	— 17.5	-	5.0.
			21.	-	— 26.7.	-	14.7,	-	— 27.0	-	15.0.
			22.	-	— 29.4.	-	15.7,	-	— 29.7	-	16.0.
			23.	-	— 25.5.	-	13.4,	-	— 25.8	-	13.7.
			25.	-	— 15.6.	-	8.0,	-	— 15.9	-	8.3.
			26.	-	— 23.6.	-	13.6,	-	— 23.9	-	13.9.
			Mean.	-	— 26.6. Max — 16.0	Range	10.6,	read	— 26.8, — 15.9	and	10.8.

222, 5th line from the top, frequence, read frequency.

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